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ABSTRACT

In the first part of the monograph Herr discusses 5 of the 11 conditions discussed in "An Introduction to Career Education," U.S.O.E. Policy Paper, 1974, by director Kenneth Hoyt, calling for reform in our educational systems: (1) school leavers are deficient in basic skills required for adaptability in society; (2) students fail to see meaningful relationships between what they learn and what they do when they leave school; (3) education fails to meet the educational needs of those who will never enter college; (4) many persons are unequipped with the necessary vocational, self-understanding, and career decision-making skills or work attitudes for the transition from school to work; and (5) education does not meet the needs of minority or economically disadvantaged persons. Cramer, in the second part of the monograph, documents five of Hoyt's points: (1) education has failed to keep pace with post-industrial occupation changes, thus contributing to increased worker alienation; (2) career options for women have not been reflected in the educational system; (3) continuing adult education needs have not been met; (4) there is a need for more public participation in educational policy formation; and (5) insufficient emphasis is placed on sub-baccalaureate degree level programs. (BP)

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MONOGRAPHS ON CAREER EDUCATION

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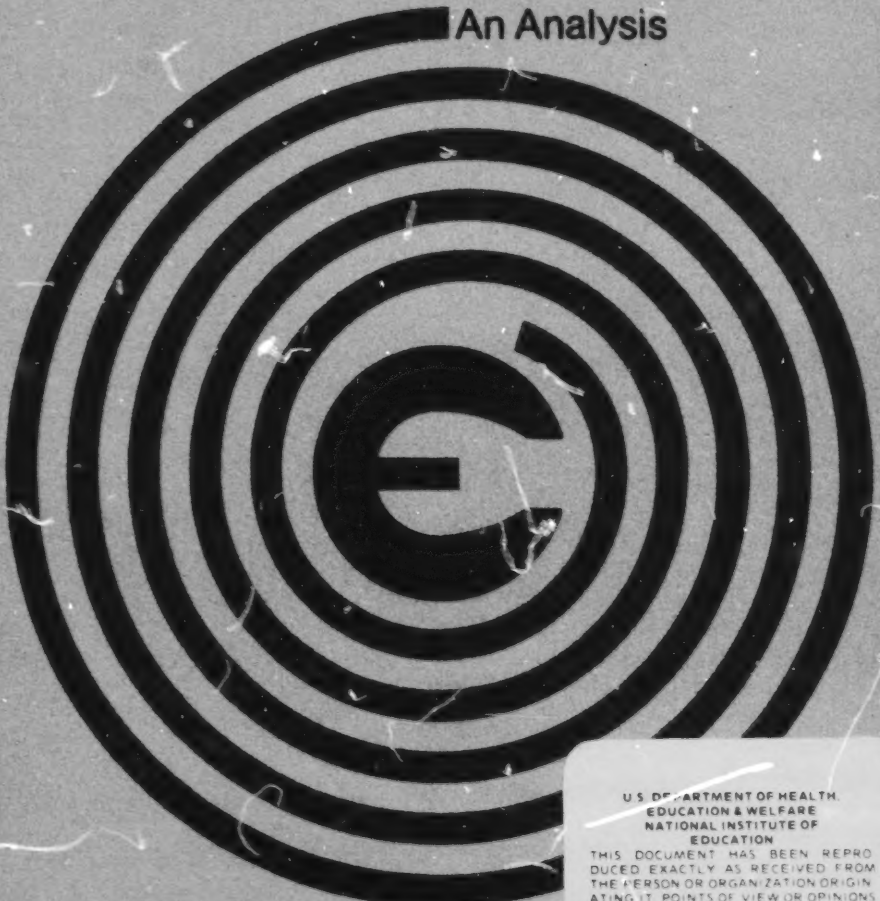
# CONDITIONS IN EDUCATION CALLING FOR REFORM: An Analysis



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## MONOGRAPHS ON CAREER EDUCATION

# CONDITIONS CALLING FOR EDUCATIONAL REFORM:
## An Analysis

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## PREFACE

This paper, one of a series of monographs being issued by the Office of Career Education, is directed to persons working in career education, educational administrators who must make decisions about emphases in instructional content, and to general educators who are in the process of considering future directions in educational planning. Thus administrators, counselors, teachers at different educational levels and in different settings may each find something of professional pertinence in the questions the paper addresses.

The Office of Career Education has outlined 11 conditions which call for educational reform, conditions which speak to societal inequities and to educational lacks. (These conditions are contained in "An Introduction to Career Education," U.S.O.E. Policy Paper, 1974, which was prepared by Dr. Kenneth B. Hoyt, Director of the Office of Career Education.) This paper presents background information relating to these conditions and briefly limns the potential contribution of career education in alleviating them. More specifically, the monograph: (1) examines educational literature and research which bear upon each of the 11 conditions allegedly underlying needs for educational reform in America; (2) considers the validity of each of these conditions as a spur to career education, and (3) identifies briefly some specific responses career education can make to each of the conditions addressed.

This paper is intended to be a review and synthesis of representative literature pertinent to the conditions at issue rather than an exhaustive study in each area. As such, it is an introductory survey of the validity of certain assumptions about American education to which career education offers a response. To the degree that the conditions described are present in current educational practice, this paper provides a conceptual rationale for the installation of many existing forms of career education content and process as well as a prod to educators to go beyond these for emphases not yet a part of career education approaches.

The two parts to this paper were contracted for as separate publications. As they were developed, however, it appeared that they could be combined as a single monograph. Part I was prepared by Dr. Edwin L. Herr of The Pennsylvania State University and Part II by Stanley H. Cramer of the State University of New York at Buffalo.

# CONDITIONS CALLING FOR EDUCATIONAL REFORM
## An Analysis

by
Edwin L. Herr

Since 1971, the term Career Education has made considerable impact on the educational mentality of America. Critics have damned its alleged implications for a new vocationalism or its concept of education as utilitarian and proponents have argued the merits of the concepts involved: Educational relevance, individual choice, etc. Much of this debate has centered upon the opinions and the emotions of the critics or the proponents rather than the validity of the educational condition to which career education is intended to respond.

In the U.S. Office of Education Policy Paper "An Introduction to Career Education," Kenneth B. Hoyt, Director, Office of Career Education, has identified 11 "conditions calling for educational reform" that career education, seeks to correct. These conditions represent a compilation of prime criticisms of American education voiced by a variety of spokespersons in the professional and lay sectors of American society. Since blanket indictments or global criticisms of any social institution tend as much to obscure and confuse as to enlighten, the future shape and significance of career education rests upon the validity and the character of the criticisms to which it represents a response.

While, as indicated above, 11 conditions calling for educational reform have been identified only 5 will be discussed in this paper. They include:

1. Too many persons leaving our educational system are deficient in the basic academic skills required for adaptability in today's rapidly changing society.
2. Too many students fail to see meaningful relationships between what they are being asked to learn in school and what they will do when they leave the educational system. This is true of both those who remain to graduate and those who drop out of the educational system.
3. American education, as currently structured, best meets the educational needs of that minority of persons who will someday become college graduates. It fails to place equal emphasis to meeting the educational needs of that vast majority of students who will never be college graduates.
4. (#5 in the original paper) Too many persons leave our educational system at both the secondary and collegiate levels unequipped with the vocational skills, the self-understanding and career decision-making skills, or the work attitude that are essential for making a successful transition from school to work.
5. (#10 in the original paper) American education, as currently structured, does not adequately meet the needs of minority, or economically disadvantaged persons in our society.

It is probably obvious to the reader that such criticisms include a load of high value. For example, words and phrases such as "too many," rapidly changing," "meaningful," "adequately," are defined differently from observer to observer and in some cases are difficult to quantify. In other instances, they represent overall impressions or subjective judgement rather than interpretations of data bases.

Given such caveats, this paper will attempt to identify data, research, or value statements which seem pertinent to each condition identified. It is unlikely that the material identified will be exhaustive of all possibilities but an attempt will be made to insure that it is representative of such a domain.

It is also worth noting that the five conditions are not mutually exclusive. Thus, the data and speculation examined often do not fit cleanly in one condition rather than another but flow across them and relate to several.

## Condition 1

It is virtually accepted as a truism among critics of the American educational enterprise that *too many persons leave our educational system deficient in the basic academic skills required for adaptability in today's changing society.* It is less clear of what such basic skills consist. Many educational critics seem to assume the basic academic skills are confined to reading, writing, and computation. Other observers contend that additional skills should also be included as basic requirements in today's society. These latter usually relate basic skill to some social function or goal.

### Some Perspectives on Academic Skills

Darcy (1969), for example, has indicated that the basic skills related to work success include: communication skills, computational skills, manual dexterity or motor skills, and group organization and human relations skills. It is his position that employability, productivity and earning power are enhanced by verbal skills (reading, writing, speaking); mathematics; manual skills; and the ability to work effectively with other people. In addition, he contends that these skills are "basic, durable, versatile, transferable and open-ended, they represent human capital that is virtually immune to obsolescence." Marland (1972) has contended that interpersonal and organizational understanding are "survival skills" without which one simply cannot exist in a modern nation–state.

Coleman (1972) has argued that youth have been excluded from the "educational mainstream" in their society. He cites several skills, essentially basic from his perspective, that should be provided by the educational system before a student becomes 18 years of age. They include:

1. "Intellectual skills," the kinds of things that schooling at its best teaches.
2. Skills of some occupation that may be filled by a secondary school graduate, so that every 18-year old would be accredited in some occupation, whether he continued in school or not.
3. Decision-making skills: That is, those skills of making decisions in complex situations where consequences follow from decisions.
4. General physical and mechanical skills: Skills that allow the young person to deal with physical and mechanical problems he will confront outside work, in the home or elsewhere.
5. Bureaucratic and organizational skills: How to cope with a bureaucratic organization, as an employee, a customer, a client, a manager, or an entrepreneur.
6. Skills and care of dependent persons: Skills in caring for children, old persons, and sick persons.
7. Emergency skills: How to act in an emergency or unfamiliar situation, in sufficient time to deal with the emergency.
8. Verbal communication skills in argumentation and debate.

Ginzberg (1971) has argued that many students remain in school until their 18th year, pass the modest requirements for a high school diploma but in fact graduate with little knowledge and less skill. In particular he notes that a considerable number of high school graduates cannot even pass the armed forces selection examination which is, in fact, cast at an 8th grade equivalent level. Speaking further to the matter of basic academic skills he contends that we tend to overlook "the fact that the preferred occupational preparation for a white collar society is the acquisition of skills in language, numbers, and analytical thinking. While a minority will earn their living in manual trades, the vast majority of the oncoming generation will work with paper and pencil, with typewriters, calculators, computers, and testing equipment."

Ginzberg's assertion that America has become a white collar society essentially accords with other descriptive euphemisms such as America's becoming a post-industrial society or Drucker's contention (1969) that America has become a knowledge society. In this movement toward a knowledge economy, cognitive skills—basic academic skills as they are identified here—predominate in most work activity and in other work aspects. Thus, concurrent with rising requirements for such basic academic skills is a decrease in the number of unskilled jobs available to absorb dropouts or persons unequipped with appropriate academic skills. One indicator of this situation is Venn's (1973) observation that 5 percent of the jobs available today require no education and no specific jobs skills as compared with 25 percent of the jobs 20 years ago.

The importance of basic academic skills is reflected in Drucker's (1969) observations that: "The systematic acquisition of knowledge, that is organized formal education has replaced experience—acquired traditionally through apprenticeship—as the foundation for productive capacity and performance," (p. 40). In addition, he contended that: "The productivity of the worker will depend on his ability to put to work, concepts, ideas, theories—that is things learned in school—rather than skills acquired through experience" (p. 41) . . .a knowledge foundation enables people to unlearn. It enables them in other words to become "technologists" who can put knowledge, skills, and tools to work, rather than "craftsmen" who know how to do one specific task one specific way . . . . Technologists are people capable of using theory as the bases of skill for practical application in work (Drucker, 1969, 268, 303, 309, 318).

Levitan, Mangum, and Marshall (1972) also have reported that occupational and industrial shifts since the 1950's have favored more extensive skills and educational attainment. In the goods producing areas, "technological and organizational changes have enhanced the importance of nonproduction workers—for example, the white-collar jobs of executives, sales personnel, office workers, engineers—as opposed to blue collar workers," (p. 64).

In sum, it is fair to suggest that it is not clear what mixtures of expertise and skill levels might be most effective in reaching national goals (Weathersby, 1972). Perhaps it will never be since the basic skills required to adapt to a changing society must be in a dynamic state depending upon what kind of change is occurring. Even though more than narrowly defined academic skills are required to function effectively in today's society, the goals cited continue to support the importance of basic academic skills—reading, communication, computation. This is true not only in terms of work but obviously in terms of further education.

For example, as Cross (1973) has indicated, the greatest single barrier to college admission in the 1960's was not ethnic identity or socioeconomic status per se. Rather it was lack of demonstrated academic ability—as that ability is nurtured and measured in the schools.

## The Level of Basic Academic Skills Possessed by Americans

Given this brief attention to the importance of basic academic skills in a rapidly changing society, the other dimension of condition #1 is that too many persons leave our educational system without such skills. Typically, this argument has centered about the statistic that during 1970-71, "3.7 million young people left formal education. Of these, nearly 2.5 million lacked skills adequate to enter the labor force at a level commensurate with their promise. Many left with no marketable skill whatever." These latter assertions are predicated upon the fact that the 2.5 million identified are composed of 850,000 persons who dropped out at either the elementary or secondary school level; 750,000 who graduated from high school in the general curriculum (which has been described as a "swampland," offering "meaningless irrelevant pap"); and 850,000 who left college without a degree or completion of an organized occupational program, (Marland, 1971).

The assumption in such statistics is that no persons dropping out of school before high school graduation, matriculating in the general curriculum, or terminating college without a degree or completing an organized occupational program acquired basic academic skills. Obviously, such an assumption has error in the extrapolations it represents but data do not exist to indicate how many persons in these three groups do attain such basic academic skills. Indeed, Silberman (1970) has contended that, "... we have remarkably little information on how much students learn from school, or on how much they know, whatever the sources of their knowledge. The U.S. Office of Education's annual *Digest of Educational Statistics* for 1969, for example, contains 128 pages with 170 tables, only one of which contains data on what students are learning" (p. 13).

What is also worth noting is that the approximate *number* of drop-outs from American education is essentially the same as it was 20 years ago and probably many years before that. With larger numbers of students now persisting toward high school graduation, the dropout *rate* (rather than the absolute number) has declined from approximately 41 percent in 1950 to 22 percent in 1971 (Madden, 1974). This change can be cast against the fact that in 1910 less than 10 percent of the students entering first grade completed high school while today between 70 and 78 percent of students entering first grade complete high school. While this quantitative progress is excellent in relative terms both with regard to 1910 in this country and with regard to many of the other nations of the world, a 20 to 30 percent dropout rate and indefinite knowledge about how much high school graduates or, indeed, college graduates have learned lies at the base of national concern that the schools are not equipping young Americans with basic academic skills.

While, as Silberman has contended, our knowledge of how much or how little students are learning is less than fully developed, some specific indicators and

estimates do exist. In the following sections a number of such markers will be identified. Elkin (1973) in discussing unchanging schools states: "A review of the celebrated New York City pioneer effort in community control concludes that. . . after all the publicity and conflict, after all the bold rhetoric and revolutionary expectations, after all the money spent, jobs allocated, new machinery and programs introduced, the children of the [Ocean Hill-Brownsville] district cannot read as well today as they did five years ago." Related to such a conclusion are findings of the 1964 Project TALENT survey reported by Flanagan. He indicated that "the present instructional programs are not enabling students to achieve the levels in reading comprehension that are essential for effective participation in a democracy. For example, only 7 percent of 9th grade students and 25 percent of 12th grade students were able to answer correctly half of the questions based on typical paragraphs discussing national issues in *Time Magazine*. These results suggest that today's high school graduates are ill-equipped to evaluate the evidence and make wise decisions and choices. . . . That some of this failure to develop skill in reading comprehension is due to the assignment of inappropriate material is suggested by the fact that about 34 percent of both the boys and the girls in the 12th grade stated that about half the time or more frequently "I read material over and over again without really understanding what I have read." (Flanagan, 1970).

Not only reading but other basic academic subjects are at issue. Skinner, (1968), for example, has contended that "Even our best schools are under criticism for their inefficiency in the teaching of drill subjects such as arithmetic. The condition in the average school is a matter of widespread national concern. Modern children simply do not learn arithmetic quickly or well," (pp. 17-18). The findings of Long and Herr (1973) tend to support Skinner's observation. Their study queried 260 vocational teachers representing a variety of specialties about which, if any, of 66 mathematics skills (obtained from standard mathematics or remedial texts) were important to vocational education. They found first that there is a mathematics base that underlies vocational training emphases. More pertinent to the point being made here, however, is that many students enter vocational education courses needing remediation in arithmetic skills which one would have assumed they would have learned earlier in school. The following represents only those skills ranked in the first 10 among those needing the most remediation and so identified by 45 percent or more of all the teachers in the sample:

| Rank of Remediation | Percent of Teachers | Skill |
|---|---|---|
| 1.5 | 53.8 | Square Root |
| 1.5 | 53.8 | Changing Common Fractions to Decimals |
| 3.5 | 50.0 | Changing Decimals to Common Fractions |
| 3.5 | 50.0 | Division of Fractions |
| 6 | 47.6 | Multiplication of Fractions |
| 6 | 47.6 | Reading and Writing Decimals |
| 6 | 47.6 | Addition of Fractions |

| Rank of Remediation | Percent of Teachers | Skill |
|---|---|---|
| 8 | 47.3 | Ratio and Proportion |
| 9.5 | 46.9 | Subtraction of Fractions |
| 9.5 | 46.9 | Decimal Equivalents |

These are obviously not exotic mathematic skills yet many students have not acquired them by the time they reach 10th grade. What is particularly interesting is that except for square root, these skills were probably part of the curriculum for the students involved for at least 4 years before they entered vocational education.

In comparing more recent Project TALENT findings with earlier ones, Flanagan (1973) has reported many findings pertinent to the point at issue. They include:

> . . . In many secondary school English classes teachers continue to try to inspire students with a love of literature, using classics that many of the students cannot read well enough to understand. . . . In 1960, 38 percent of the eleventh grade students in the sample reported that about half the time or even more frequently, "I read material over and over again without really understanding what I have read." In the 1970 survey 33 percent of the students still reported having that much difficulty with their school reading . . . . The present educational program is achieving very poor results because of inappropriate activities required of the students and a lack of adequate performance standards. . . . In the 1960 Project TALENT survey it was found that 65 percent of the eleventh grade students achieved a level of comprehension equivalent to that required to understand half of the points included in typical paragraphs from Robert Louis Stevenson's writings, but only 36 percent achieved this level of comprehension of typical paragraphs from the writings of Rudyard Kipling. Only 8 percent of the eleventh-grade students were able to understand typical paragraphs from the writings of Jane Austen this well. Corresponding figures for eleventh grade students in the 1970 update in a sample of the same schools were 66 percent, 37 percent and 10 percent . . . . In replying to the question "Are you satisfied with the progress you are making to develop your abilities in reading, thinking, and writing?" only 46 percent of the eleventh grade students in the sample reported they were satisfied or very satisfied.

While such findings do support the culpability of the American school and the validity of assertions that too many persons leave the educational enterprise without basic academic skills, it is unfair to leave the matter there. On the one hand, attributing lifetime opportunity to effectiveness in basic academic skills probably understates the effects of noncognitive traits in relation to success criteria. On the other hand, attributing individual success or failure in life exclusively to the quality of schooling probably underestimates the significance of such other influences as family, shifts in the occupational structure, etc. These are complex interactions and generally ones for which quantitative rather than qualitative data exist. Even though these interactions or the specific influences other than schooling are beyond this paper several findings are worth

noting. For example, Blair and Duncan (1967) have demonstrated that the higher the occupational achievement of the father, the higher that of the son, and the more educated the parent, the more educated the child. Related to such points are Masters (1969) findings that the probability of dropping out of school by age 16 or 17 was directly related to the education level of the head of the household. The lower the education level of the head of the household the more likely it was that the child was at a grade level behind that of his age group. Numerous other studies point out that the academic performance of the child is likely to be related to parental social class, the assumption being that much of the education and educational motivation of a child occurs as a function of the values and reinforcement at home. This relationship is dramatically illustrated in data prepared by the National Assessment of Educational Progress under the aegis of the Education Commission of the States.

TABLE I

ACHIEVEMENT OF READING OBJECTIVES BY EDUCATION LEVEL OF PARENTS 1970-71

| Age at which test taken | Percentage difference from national median of children tested by education level of parents | | | |
|---|---|---|---|---|
| | No high school | Some H.S. | Completed H.S. | Beyond H.S. |
| 9 years | -8.0 | -4.0 | 3.0 | 8.0 |
| 13 years | -16.0 | -5.0 | 1.0 | 7.0 |
| 17 years | -14.0 | -6.0 | 1.0 | 6.0 |
| Adult | -8.0 | * | 3.0 | 9.0 |

*Definition:* Percentage difference by age group and parental education, from the national median percentage of successful exercises. Sample of data refers to the attainment of Reading Objective III: The ability to use what is read. This objective requires that respondents recall facts from a passage that is read without referring to that passage, to perform various tasks on the basis of what is read, and to demonstrate an ability to obtain information from a variety of non-textual materials.

TABLE II

ACHIEVEMENT OF SCIENCE OBJECTIVES BY EDUCATION LEVEL OF PARENTS
1969-70

| Age at which test taken | Percentage difference from national median of children tested by education level of parents | | | |
|---|---|---|---|---|
| | No high school | Some H.S. | Completed H.S. | Beyond H.S. |
| 9 years | -7.2 | -4.8 | 0.6 | 5.8 |
| 13 years | -11.8 | -6.2 | -1.3 | 5.2 |
| 17 years | -8.4 | -7.6 | 0.1 | 5.1 |
| Adult | -7.9 | -1.6 | 3.0 | 9.1 |

*Definition:* Median percentage differences between the performance of age groups, by parental education, and the national sample, on the achievement of science objectives in the National Assessment of Education Progress.

At another level, evidence exists which shows that students who receive a higher quality and quantity of schooling also show higher earnings on the average than persons who experience poor quality and fewer years of schooling, (Becker, 1964). It has long been obvious that persons with more schooling receive higher earnings over their lifetimes but data also exist which suggest that earnings are affected by not only the number of years an individual spends in schools but also what has been learned, as measured by achievement tests (Levin, Guthrie, Klendorfer and Stout, 1971). Generally related to this latter point is the study of Bajema (1968). This study looked at the relationship between schooling and occupational choice and success. The findings of Bajema are that, "while intelligence (as measured by Intelligence tests) is associated with occupational achievement, its effects operate wholly within the school system," which simply means that unless intelligence is manifested in acquiring the skills available in schools, it alone is not particularly useful in explaining occupational achievement.

In sum, then, the assertion that too many persons leave our educational system deficient in the basic academic skills required for adaptability in today's rapidly changing society does have validity although the data available are minimal. In many instances, it is necessary to extrapolate from drop-out rates and other indicators to reach such conclusions since data about the amount of learning per se taking place less frequently appears in the research literature. To grant the validity of this assertion, however, is not to contend that the acquisition of basic academic skills is independent of family values and education or other social influence. [The reader might want to turn to Condition 5 for specific data dealing with minority and disadvantaged persons in relation to Educational Achievement].

## Contributions of Career Education

Since there are clearly rising cognitive requirements in the American occupational structure and evidence to suggest that some proportion of persons (whether too many or not) continues to leave the educational system with insufficient basic academic skills, career education would seem able to respond in several ways. The first, perhaps, is to provide a context in which students can acquire basic academic skills in less abstract ways than seem now to be the norm. Tying such skill acquisition to concrete problems in living would be one alternative in this regard. Secondly, career education could give impetus to the educational systems' recognition that basic academic skill requirements necessary in today's society embrace more than reading, writing, and communication and include interpersonal skills and organizational understandings at a minimum. It also seems imperative that career education be the vehicle to involve parents in the education of their children. The linkage between student acquisition of basic academic skills and parental characteristics is too strong to assume that schools alone can overcome it. Parents must be incorporated in the support system of education if it is to serve effectively more persons than is now the case. Finally, career education can contribute to the dilemma of basic academic skill acquisition by acquainting both students and faculties with the linkage between basic academic skills and productive living.

## Condition 2

In a society which has become increasingly concerned with psychological issues and self-identity it is to be expected that one of the criticisms of education would be: *Too many students fail to see meaningful relations between what they are being asked to learn in school and what they will do when they leave the educational system.* The sheer quantity of life and occupational alternatives from which a person can choose in this society places a psychological burden of decision-making upon the individual when such constraints as state-defined manpower quotas or caste restrictions do not prevail to restrict choice. Similarly the philosophical principles which underly national values give impetus and credibility to individual attempts to find meaning and purpose in this life. Since schooling is such a major part of the lives of adolescents and youth, it is to be expected that questions of the meaningfulness of what is being learned will arise and, in the present social turbulence, become a crescendo. It is likely that such questions have always been posed but rarely valued as they are today.

The insistent clamor by the mass media, some aspects of education and religion and other stimuli for each person to answer questions such as Who am I? What I do want to give to life or get from it? causes the individual to believe that one who is without answers is without purpose and a sense of self. During the search for such answers persons frequently become alienated or place upon education appelations like meaningless or irrelevant if it is not directed specifically to these psychological requirements.

## Meaninglessness Among College Students

The question of the meaningfulness of education has probably been energized most recently by college students although the matter is certainly not confined there. For example, Astin and Bisconti (1972) have reported that compared to 1966 freshmen, fewer 1970 freshmen found traditional life objectives (as reflected in curriculum majors dealing with entrepreneurial, materialistic, altruistic or social achievement goals) to be personally meaningful. Recent freshmen have become more inner-directed about their life styles and goals. The only set of goals selected by increased proportions of freshmen reflected an interest in activities that satisfy oneself rather than activities that promise recognition from the larger society.

Sandeen (1968) has reported in relation to the meaning of a bachelor's degree that: "Purely academic efforts seem, to increasing numbers of students, largely unrelated to the really important questions of life." Many students evidently have decided that, "if any meaning is to be found, it must be done apart from the actual structure of the college."

Lefkowitz (1973), in conducting random interviews with some 300 students from over 50 leading colleges and universities in the Eastern United States found that: "Over two-thirds of the students interviewed stated that college education, or what was being presented to them, was not worth the effort. Only 24 of the students said their education would be considered fair, and 26 stated that they felt they were getting a good education." Kristol (1970) seems to support these observations in his statement: "We have all seen bright young high school graduates move on to our college campuses and, after only a relatively short period, display a feebler intellect, a less cultivated sensibility, and a greater vulgarity of soul than either God or their parents bequeathed to them."

## Meaninglessness in High School

> With respect to the high school, Ralph Tyler (1970) has stated that: ". . . We currently fail to educate approximately one-third of the youth enrolled in high school. This is not due primarily to the inadequacies of the students but to the inappropriateness of the program to supply them with the kind of learning required. They are concerned with becoming independent adults, getting jobs, marrying, gaining status with their peers, and helping to solve the ills of the world. They perceive little or no connection between the educational content of the school and their own concerns." ". . . It is a rare school today that helps the student deal with the personal, social, economic, and moral problems which confront him. . . . If the psychologists are correct that youth are seeking a sound basis for developing adequate coping behavior, then truly the schools with their core of "solid" subjects preparing them (presumably) for lives of disinterested scholarship are basically irrelevant to them."

Thus, Tyler indicated not that basic academic skills are unimportant but rather that they are insufficient and as taught often unrelated to the developmental matters children are coping with. Martin (1971) speaks to the view that one can expect a certain amount of discontent about courses simply as

a function of the sparring between the young and old. However, he contends that; "Other complaints, involving boredom and confusion are more serious and often go unspoken: Why are we studying this? Why is it important? Often we do not treat these questions seriously enough or we fail to explain sufficiently our answers. This adds to the confusion. The main complaint of twelve-and-thirteen year olds is not the *irrelevance* of their studies: it is rather that they are not let into the secret of the importance of what we ask them to study."

In this connection, Lathrop (1974) has argued:

"that educators traditionally have oriented curriculums around the fragmented discipline-oriented concepts of the nature of knowledge. . . with little or no attempt to relate information to the lives of children. Information is taught simply because it exists (p. 192). . . . If schools are to be criticized, then, the charge should not be that they don't emphasize academic learning enough; rather, the more valid complaint should be that the programs that exist in most schools are so out of balance with the total needs of youth that other aspects of the child's life are given only token attention or are ignored completely" (p. 200).

Parnell (1971) has argued this same point in the following manner:

"Countless studies, research projects and committee investigations have pointed out to the nation that the American high school has been missing the mark. In a country dedicated to the concept of universal education, a majority of secondary schools still ignore the fact that they are not meeting the real needs of at least half the students. Secondary school curricular programs in this country are generally structured as though everyone were preparing to attend a four-year college. This has produced two serious consequences:

1. The career choices of many high school students are still left to chance. Students leave high school not only unprepared to enter specialized career training but also lacking the skills, knowledge and attitudes necessary to begin earning a living.
2. Too many students are unable to profit greatly by what is offered in the traditional high school program which fails to accommodate individual differences in rate of learning. Also, programs are not offered in a context that has meaning for students. As a result, students are goal-less and often leave high school without developing those competencies so vitally needed to begin functioning successfully as citizens, neighbors, homemakers, parents and wage earners."

Shoemaker (1971) has contended that "at age 16 the problem which has greatest relevance to the young person is: What is going to happen to me in the adult world? This question takes on great significance if we realize that, for most youth, high school is their last opportunity for a full-time educational program." After examining some of the descriptions of high school indicators considered related to relevance, he argues further: "It seems clear that there can be no relevance in a curriculum unless it is related to student goals, and I submit that the success of vocational education is due to the fact that it is goal-centered education based upon the student's choice of a goal."

Even in vocational education, however, Gordon has indicated that: "It seems evident that youth do not persist in job skill programs unless the programs are relevant to the self-perceived needs of youth, nor do they continue in programs if their successful completion of the program does not result in a job that is worth the effort required for completing the program," (Gordon, undated).

Whether vocational education is the issue or not, it seems clear that there is a perception that existing curriculums are not related to student needs and this leads to a lack of meaning. Again using Project Talent data, Flanagan (1973) has indicated that in 1960, 44 percent of the students surveyed reported that about half the time or more often, "I feel that I am taking courses that will not help me much in an occupation after I leave school." The comparable figure for 1970 was 45 percent. Similarly, 56 percent of the 11th-grade students (61 percent of the girls, but only 51 percent of the boys) in the sample answered "well" or "very well" to the question "How well do your school courses meet your needs?" In a supplementary study involving an intensive case study of 400 students in a better-than-average school system in the Northeastern section of the country, the evaluators estimated that the schools were meeting the student's needs "nearly perfectly" for 25 percent of the students, "in most respects" for 49 percent of the students," "well in some respects and poorly in others" for 22 percent and either "fairly unsatisfactorily" or "very poorly" for 4 percent, (Flanagan, 1966).

## Perspectives on Meaning in Education

As Birkel (1972) has noted, in discussions considering the relevance or meaningfulness of education, there frequently seems to be an implied or unquestioned assumption that the educator is the sole determiner of the events or actions which result in the curriculum being relevant or not relevant. To the degree that such a perspective is translated into operation, it is generally not recognized that the teaching-learning process is a two-way process in which *both* teacher and learner play a vital role. However, as Birkel reminds the reader, "the responsibility for relevance does not rest alone on either the teacher or learner. Instead, as is so often the case in education, it originates in the interaction between the two."

The interaction between learner and teacher necessary to relevance or meaningfulness in education is essentially what Luce and Volksdorf (1973) identify as the need for shared responsibility. They report that while authority in education preaches responsibility, this term is usually defined as "conformity to adult authority." In addition, they indicate that, "we seem to have made the assumption that merely studying about democracy will somehow produce appropriate attitudes and behavior" rather than presenting meaningful choices to young people in order to foster mature and responsible behavior.

In a sense, what these observations deal with are both the lack of response of education to student needs and the nature of adolescence in America. Goodman (1960) stated some years ago that: "It is hard to grow up in a society where one's important problems are treated as non-existent. . . . If there is nothing worthwhile it is hard to do anything at all." In a social context such as contemporary America when the economic and personal dependence of high

school and college students continue to be extended and where much of the substance of their concern is abstract and theoretical rather than directly tied to resolving the social problems to which their attention is constantly directed, subtle and direct affirmations of one's powerlessness or meaninglessness can fester. Feelings of being futureless, powerless, depersonalized or brutalized all reinforce a lack of meaningfulness of education in relation to the future. If one's feelings is that his future is in the hands of others whether one describes "them" as the "Establishment" or the "Multiversity" or "fate", then cognition and intellect are likely to give way to feelings and experiencing as guides to behavior. Such a condition supports the seeking of immediate gratification rather than planning and deferring gratification present when rationality is the dominant guide to behavior. In other words, it is not only a function of the meaningfulness of education but the degree to which one's feelings about life and its meaning impinge upon education.

One manifestation of the fusion of the conditions just described is that during the period of the Viet Nam War culminating in 1969, approximately 60 percent of the high schools and a like number of junior high schools, widely distributed geographically throughout America, had undergone some form of protest (National School Public Relations Association, 1969). Prior to that time, activism, dissent, and tactics of confrontation among students were, except in isolated circumstances, confined to colleges and universities (Herr, 1972). There are obviously many factors involved in this condition. One analysis suggests that the forces precipitating disruptions can be divided into those of: (1) Student characteristics, (2) school related conditions, (3) the organizational structure of the school, and (4) extra-school factors (Wittes, 1970).

Wittes (1970), as a result of a penetrating study of power and crisis in secondary schools, contends that "student dissent in secondary schools over race, curriculum, policy-making, dress codes and censorship seems related in the viewpoints of many observers, to the world wide movement toward the right to self-management." More specifically, it is maintained that: "Regardless of their social, ethnic, or social background, their level on the school status hierarchy many students in our schools are engaged in a common quest—a search for power. They seek to control their own lives and to influence the behavior of others to make their demands heard and, once heard, implemented. They are beginning to learn from recent school and societal experiences that power is not conceded but must be demanded or taken" (Wittes, 1970, p. 3).

Other research findings suggest that when the individual sees no relationship between his own behavior and his rewards, this situation gives rise to feelings of alienation from society (Warner and Hansen, 1969) and from education as a major instrument of the society. The more specific case of achievement behaviors also appear to respond to notions of personal control of behavioral outcome. Rotter speaks of the matter when he says:

> Where a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him. When the event is interpreted this way by an individual, we have labeled this belief in *external control.* If the

person perceives the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in the *internal control.* (Rotter, 1966).

With some theoretical forcing, one can extend the point of powerlessness and its ramifications to the whole sector of life termed adolescence. Because of technological, economic, and educational characteristics in America, adolescents have been in limbo. As indicated earlier, their years of schooling and of subsequent dependence have lengthened, their entry into the domain of "real work," their potential for meaningful participation in either the larger society or their microcosm of it—the school—largely nullified as befits being essentially "non-persons" or "marginal men" as those without power have been frequently described.

Jacobs (1971) contends that confusion, boredom, and rage among students result from expectations which schools even in affluent areas can not meet. She contends that because these students attended small elementary classes devoted to "the whole child" and dedicated to making learning fun, they enter high school expecting to be nurtured, valued, and entertained as they had been earlier by teachers and by parents who have overinvested emotionally in their children. What they find is an increasing emphasis on competitive advantage in those intellectual pursuits presaging attendance at prestigious collegiate institutions. Teachers and administrators have less time for personal contact with students than students feel should be available. Parents want panaceas to student drinking, drug abuse, or promiscuity, a panaceas which school resources are unable to deliver. In frequent cases, everyone in the situation—teacher, parent, student, administrator—finds himself harried, confused, ambivalent.

Growing numbers of observers of activism or "ennui" in the secondary schools are implying that a major reason underlying these situations is that students themselves have changed in significant ways over the last decade or so. Comprehensive data exists to support the contention, for example, that, "Today's youth are more highly developed physically and intellectually than any comparable group in our recorded history" (McDaniel, 1968). If educational processes do not take such realities into account, it becomes understandable that educational aspects which are obsolescent or out of sequence with student development would cause withdrawal, attack, or confusion about the meaningfulness of it all.

Specific data really do not exist about the number of persons who find or do not find meaningful relationships between what they take in school and what happens after they leave the educational system. However, the importance of this matter can be extrapolated from various research studies. Johnson and Johnson (1972) have reported on a follow up study of 75 percent of 1,191 students 3 years after they graduated from three high schools. Among the questions asked were, "How well did high school prepare you for the job you have now?" Approximately 45 percent of the students indicated they had good preparation, 19 percent thought their preparation was neither good nor poor, and about 36 percent thought their preparation was poor. It was also found that 3 years after graduation over one-half of the employed graduates had jobs related to their course of study in high school and that there was a direct relationship between job satisfaction, high school preparation satisfaction, and

whether or not an individual's occupation was related to his course of study in high school. Gibbons and Lohnes (1968), in examining the concept of readiness for vocational planning as related to vocational maturity, have reported the importance of a number of factors which can be related to understanding and acting upon the meaning of what one is learning and its relationship to the future. Their research has identified eight variables, which in combination correlate to a high degree with readiness for vocational planning at 8th grade and beyond and in relationship to the maturity or realism of post-secondary outcomes. Among such variables are:

Variable I.—Factors in Curriculum Choice. Awareness of relevant factors, including one's abilities, interests and values and their relation to curriculum choice; curriculums choice to occupational choice.

Variable II.—Factors in Occupational Choice. Awareness of relevant factors, including abilities, interests, values; educational requirements for choice; accuracy of description of occupation.

Variable VI.—Interests. Awareness of interests and their relation to occupational choices.

Variable VII.—Values. Awareness of values and their relation to occupational choice.

As a function of the longitudinal Career Pattern Study, Super, Starishevsky, Matlin, and Jordaan (1963) have indicated that among the 12 behaviors and attitudes which underlie or foster the specification of a vocational preference in adolescence are included:

1. Use of resources.—Principally a set of instrumental behaviors by which one copes with exploration whether it is focused on self-understanding or occupational description; this element is present in relationship to a large number of persons or objects: Parents, counselors, *teachers, materials,* part-time jobs.
2. Awareness of factors to consider in formulating a vocational preference.—This involves knowledge of the possible bases for preference—whether intellectual requirements, relationship between interests and appropriate outlets, need for alternatives, or availability of outlets for different self-characteristics, i.e. security and prestige.
3. Differentiation of interests and values.—This element is the ability of the individual to differentiate the personally important from the unimportant and to concentrate his attention on certain objectives and activities rather than others as a basis for decision making and for action.
4. Awareness of present-future relationships.—This factor is concerned with coming to terms with the *interrelationship between present activities and intermediate or ultimate vocational activities, for example, understanding educational avenues and their requirements as these provide access to different fields or levels of occupational activity.*
5. Planning for the preferred occupation.—The focus here is on decisions as to what to do and how to do it. As Super and Overstreet demonstrated in their work in 1960, specificity both of planning and of information are measurable characteristics of vocational maturity in early adolescence.

Additional studies by Super have found that vocational maturity factors common at both the 9th and 12th grades included the availability and use of occupational information (educational, psychological, and economic) as well as planning, independence, crystallization of interest, and specification and implementation of preferences (Super, 1969). Indeed, he has found that the educational and occupational levels attained by age 25 are significantly related to information about training and education, occupational information, planning and interest maturity in the 9th and in the 12th grades.

According to the research of Super and of Gibbons and Lohnes students need a comprehensive body of information which links what they are doing educationally at particular points in time to future options they will have in both education and work. They need to know what curriculums will be available to them, what factors distinguish one curriculum from another, what components make up separate curricular pathways, what personal factors are relevant to success in different curriculums, and how the various curriculums are linked to different field and level responsibilities in the occupational world (Herr and Cramer, 1972, p. 117).

In sum, the validity of the assertion that too many students fail to see meaningful relations between what they are being asked to learn and what they do when they leave the educational system rests upon subjective grounds. While it has been stated that little "hard data" exists to verify how much learning actually takes place in school, a similar lack of hard data exists to indicate the magnitude of those who find little meaning in school. Yet, if one extapolates from the drop-out rate from the high school or from the college, large numbers must experience such a condition. As indicated previously, not all drop-outs leave school because they lack the necessary intellectual requisites to cope with the minimal academic demands confronting them. Indeed it may be said that few terminate their affiliation with school for this reason alone. It is more likely that the largest number do so because the school fails to relate to their needs however clearly these needs are known.

In the absence of hard data, there is a significant amount of impressionistic data that schools in general are irrelevant, and thus lack meaning to many students, because they do not address student needs, the personal questions with which they are coping, or the reasons for learning what one is exposed to. Another body of research, however, would say that this kind of experiencing, while not now present in most schools, is necessary to the attainment of vocational maturity, achievement, and coming to terms with the self. As such, the schools have an obligation to provide it.

## Potential Contributions of Career Education

Given the current perspectives on educational meaningfulness, it would appear that career education could enhance such a condition by facilitating individual choice making and by helping students understand to what the material they are studying is related among future alternatives.

In the first instance, career education could serve as a vehicle to increase the opportunities available to students to select their educational options in line with their evolving interests or goals. Currently, students appear to be reacting

negatively to having imposed upon them fairly rigid learning patterns in which they have little choice. Similarly, the educational choices available to students tend not to embrace a very large portion of the spectrum of human talents or learning styles which might be addressed. In the latter instance, career education could well serve as a stimulus to a broader educational view of human talents and demands for these in the larger society. While serving in such capacities, career education might also assist students to understand more clearly the relationship between different kinds of school learning and the opportunities for their application in occupational and educational roles likely to be available in the future. It seems obvious that the "so what" question which many students raise about much of their learning can be answered and indeed, as the research of Super and Gibbons and Lohnes among others has shown, needs to be answered if students are to develop effective bases for planning or coming to terms with purposeful behavior.

## Condition 3

Questions about the meaningfulness of education are related to criticism's of the college orientation of the American public school system which have been frequent and wide ranging. The third condition for educational reform identified earlier is of that character: *American Education, as currently structured, best meets the educational needs of the minority of persons who will someday become college graduates. It has not given equal emphasis to meeting the educational needs of that vast majority of students who will never be college graduates.*

The National Advisory Council on Vocational Education, in their first annual report to Congress, stated that social unrest, violence and the unemployment of youth have their roots in inadequate or irrelevant education. In particular the Council indicates the heart of the problem lies with a national attitude manifested in far more investment in universities and colleges than in support of training for those whose initial preparation for the world of work precedes high school graduation. The Council further agreed that academic education, aimed at preparing students for 4-year colleges and universities, has predominated in our public education system and that high schools have emphasized preparation for college at the expense of preparation for employment.

Among the statistics typically cited to support the above assertions are the facts that "Today, less than 20 percent of the secondary population receive some kind of specific occupational training while 80 percent of our youth do not graduate from college" (Bureau of Adult, Vocational, and Technical Education, 1971, p. 3). A related, but slightly earlier study, indicated that for every 10 pupils in the fifth grade in 1957-58, 9.4 entered the ninth grade in 1961-62; 8.1 entered the eleventh grade in 1963 64; 7.1 graduated from high school in 1965; 3.8 were expected to enter college in the fall of 1965; 1.9 would likely earn baccalaureate degrees in 1969 and approximately 30 percent of American children would leave education before high school graduation (Grant, 1965). Another variation on this theme is that of those students currently in high school, only 3 out of 10 will go on to academic college level work. One-third of those will drop out before getting a baccaleurate degree. That

means that 8 out of 10 present high school students should be getting occupational training of some sort. But only about 2 of those 8 students are, in fact, getting such training (Marland, 1971).

The statistics cited are typically tied to such estimates as only 7 percent of the work force hold jobs dependent upon college and university education (Robb, 1969) or to Department of Labor projections that by the end of the decade four out of every five jobs will not require a 4-year degree. However, as Ottina points out (1973), "what often gets lost is the other half of this projection—that most of these jobs *will* require training beyond high school. In other words, the new technologies and service industries have created a new middle ground of job opportunities that call for 1 or 2 years of training beyond high school, but do not require a 4-year college degree. Blue-collar jobs as we have known them in the past are fast disappearing."

Koschler and Parker (1974) talk about Ottina's middle ground as consisting of technical education. They indicate:

> "In an effective national work force for the 1970's, from 15 percent to 25 percent of the individuals would be managerial and professional personnel, who usually need four years or more of higher education. Another 30 percent to 40 percent would be productively employed as craftsmen, laborers and the like, in positions requiring only an elementary or secondary education and some vocational training. The remaining positions would be filled by technicians and comparable specialists who would constitute from 35 percent to 55 percent of an effective work force.
>
> Further, of the 9,204,000 students enrolled in higher education during 1972, only 2,107,000 were in occupational programs recognized by the U.S. Office of Education at the technical education level. Although one to three million should be added to each of these estimates to account for the private and proprietory schools preparing technicians and paraprofessional at the post-secondary level, there still were about twice as many students in liberal arts and professional programs as there were in technical education. Thus the total number of persons in technical education programs fall far short of the quantity needed if our economy is to function at maximum effectiveness.
>
> In March of 1971, 33.0 percent of the civilian work force over 18 years of age had less than a secondary education, while 39.4 percent had only a high school diploma. An additional 13.8 percent had one to three years of college education and the final 13.6 percent had a bachelors degree."
>
> "Speaking to the whole of vocational education from a supply/demand perspective, Adams (1970) has contended that," by 1975, 14 million persons should be receiving some sort of vocational-technical education. In 1968, however, only 3.8 million were getting such training in the secondary schools. . . ."

The observations of Ottina, Koscher and Parker, and Adams are consistent with those of Drucker cited in Condition 1. Each reflects the importance of basic academic skills in work but neither advocates 4 years of college as the mode of level of preparation necessary to insure such outcomes among students. Indeed, one might speculate that Ottina and Drucker could support the

observations of Ralph Tyler (1970) before the Sub-committee on Education of the House of Representatives. Among his observations were the following:

> "The schools are steeped in the academic traditions which emphasize scholarship, not effectiveness in performing one's roles. . . .
>
> Although presumably dedicated to the education of all children and youth, the instructional programs within the system are related specifically to the needs of the academically able students, and little deviation is provided for the needs of nonacademic students. Basically, the same requirements and expectations exist for all students regardless of whether their I.Q.'s are above 140 or less than 90. Remedial and corrective work is frequently provided for students who are not able to make the grade academically but the purpose of this work is not to develop a curriculum uniquely suited to their needs, but rather to help them develop power to cope with the academic subject matter. Because of the standardization of the curriculum students are frequently forced into subjects that require a degree of conceptual ability far beyond their level of ability.

Tyler's observations receive at least partial theoretical support from the work of Kohlberg and Gilligan (1971). Speaking to the adolescent shifts in morality and reasoning between conventional and post-conventional worlds, they have suggested that the educational embodiment of this shift has been a different one, that of a two-track educational system dividing adolescents into two groups, an elite capable of abstract thought and hence of profiting from a liberal education and the masses who are not (p. 1081).

> Kohlberg and Gilligan further contend that: "the aristocratic tracking system just described rested on the assumption that the capacity for abstract thought is all or none, that it appears at a fixed age, and that it is hereditarily limited to an elite group in the population. The evidence on formal operational thought does not support these assumptions. Clearly the new curricula ("new math," "new science," "new social studies") assumed formal-operational thought rather than attempting to develop it. (p. 1082)
>
> When stage development is taken seriously by educators as an aim, real development change can occur through education. According to Dewey, education was the stimulation of development through stages by providing opportunities for active thought and active organization of experience. As Dewey stated: "Education is precisely the work of supplying the conditions which will enable the psychical functions, as they successively arise, to mature and pass into higher functions in the freest and fullest manner. This result can be secured only by a knowledge of the process of development, that is only by a knowledge of "psychology."

Kohlberg and Gilligan also assert that besides a clear focus on development, an aspect of Dewey's educational thought which needs revival is that school experiences must be and represent real experience in stimulating development. American education in the 20th century was shaped by the victory of Thorndike over Dewey. Achievement rather than development has been its aim. But now the achieving society, the achieving individual and even the achievement tests are seriously questioned by adults and adolescents alike. If development rather than achievement is to be the aim of education, such development must be

meaningful or real to the adolescent himself. In this sense education must be sensed by the adolescent as aiding him in his search for identity, and it must deal with life. Neither a concern with self or with life are concerns opposed to intellectuality or intellectual development. The opposition of "intellect" and "life" is itself a reflection of the two-track system in which a long period of academic education provided a moratorium for leisurely self-crystallization of an adult role identity by the elite while the masses were to acquire an early adult vocational identity, either through going to work or through commitment to a vocation in a vocational high school.

Wall (1972) observes that the Morrill Land Grant Act in 1862 was directed at the same conditions in higher education which now plague elementary and secondary education. A century ago, he contends, "higher education was strictly traditional and classical. It had no relation to the resources of the country or to the occupations and objectives of the great masses of people. Yet, it was securely entrenched in both public and private support, all classes contributing to its maintenance." In his view the Morrill Act of 1862, establishing an alternative to academic education and creating a college system of vocational and technical education, freed more people in America than the Emancipation Proclamation. He argues that public education is geared to the needs and desires of a minority, the third who enter college rather than the masses needing vocational and technical education.

Lathrop (1974) has contended that "within the ninth, tenth and eleventh and twelfth years of schooling there is a clear trend toward compartmentalizing or tracking of students. Secondary schools attempt to identify early the some 40 or 50 percent who are expected to enter college and place them in an "academic" program. The remaining students are placed in the "general" program and, if they so indicate, may be further identified as "vocational students." In many large communities the separation of academic, general, and vocational students may be so complete as to enroll them in different schools" (p. 183). He continues with a citing of statistics pertinent to these entering post secondary education:

> Of the one-third to one-half of the high school graduates about 20 percent will enter two-year institutions (junior colleges, community colleges, etc.) and the remaining 80 percent will enter four-year colleges, universities, seminaries, or technological institutes. Of the 20 percent who enter two-year institutions, about 3 out of 4 will take courses leading to baccalaureate credit and only one out of four will complete an associate degree or other terminal program. Virtually all of the four year students are enrolled in bachelor's degree or preprofessional programs. Approximately one-half of those who enter college will complete a four-year program leading to a bachelor's degree. Approximately one-fourth of the bachelor's degree recipients will complete a master's degree, and about one out of seven master's degrees will eventually earn the doctor of philosophy degree (or other advanced professional degree) (p. 185).

In a different context and a somewhat earlier time, Lathrop (1968) observed the following:

> Apparently society has taken the position that the youth who chooses not to (or is unable to) profit from an academic high school program forfeits his

rights to any publicly supported education and must shift thereafter for himself . . . We have, in this society, built up the myth that we are only responsible for providing one type of education, general education, which should be appropriate for all youth and that anyone who fails to profit from this social bequest is henceforth outcast economically and socially. Although many of us would deny this point of view, if confronted with it directly, the fact remains that we have moved exceedingly slowly in providing alternatives whereby youth who, for one reason or another, do not find it possible to continue in the traditional academic mold can obtain further instructional training through alternative educational arrangements."

Drucker (1972) has made similar observations about the schools when he says:

The schools see themselves as they once were: a fleeting not very important experience for the great majority, a vocational preparation for the learned professions for a small minority. The curriculum focuses on a small narrow sector—the purely verbal . . . Today's school is still the school of the scribes. We are beset by verbal arrogance, contemptuous of whatever is not reading, writing or arithmetic, and yet one look should show us a world in which verbal skills are not the only productive ones. They are necessarily a foundation. . . today's school dismisses three quarters of human endowments as irrelevant."

The assertions thus far stated, that there are insufficient vocational training opportunities, are supported by the observations of Hoyt et al (1972):

. . . Today 50 percent are prepared for college, but only 20 percent get a bachelor's degree. Around the time of World War I a limited amount of vocational training began to be included in the school. This has gradually increased in breadth, but at no time has there been room for more than 25 percent of the students. The third addition to the high school was the general curriculum. Having no real goals, it enrolls about 25 percent of the high school graduates, but it also produces, according to limited evidence, 70 percent of the high school dropouts (Combs and Codey 1970), 88 percent of the Manpower Development and Training Act trainees (Pucel, 1968), and over 78 percent of the inmates of correctional institutions (Galloway, 1971).

This lack of vocational training opportunities may be related to the ambivalence in outcomes attained by graduates of such training. Hu, Lee, Stromsdorfer, and Kaufman (1969) compared the labor market performance of graduates of vocational curriculums to the labor market performance of non-college attending graduates of non-vocational curriculums, particularly the academic curriculum. The influence on labor market performance of sociodemographic variables such as sex, race, intelligence quotient, marital status, and socioeconomic status was investigated through regression analysis. The findings indicate that over a 6-year period following graduation, given both sets of graduates with the same sociodemographic background, vocational graduates earned $3,456 more than graduates of the nonvocational curriculum specifically the academic curriculum Nonvocational-technical graduates earned less than vocational-technical graduates during the first year after graduation but by the 6th year following graduation, the differences in earnings between curriculums was slight.

In the same study, employment and earnings benefits of dropouts from both the vocational and the nonvocational curriculums were measured from the time when they would have graduated. Over the 6-year period, dropouts from the vocational curriculums were employed 11.6 months more than dropouts from the nonvocational curriculums. Interviews with employers also indicated that on-the-job training for employees from vocational-technical curricula was an average of 12 to 64 weeks shorter than for other employees and that vocational graduates received a higher wage rate while training on the job.

In the first nation-wide study of the post-graduate employment experience of male graduates of trade and industry vocational courses, Eninger (1965) reported that the majority of vocational course graduates do not, for their first job, enter the trade for which they trained in high school nor do many tend to enter the trade in later years. Similarly, research at the University of Wisconsin, based on a national sample of 1966 vocational graduates, showed that just over half of the high school graduates took first jobs that were completely different or only slightly related to their field of training. The relationship between training and first job varied considerably among vocational programs. Health studies had the highest proportions of graduates in training related jobs and agriculture the lowest. This study concluded that "the particular program area was of little significance in the student's post graduation employment and earnings. . . .The findings support the view that general training in vocational skills is to be preferred to specific training, that clusters of job skills in vocational training are to be preferred to simple job skills," (Ruebens, 1974).

In their sample of 642 workers (from Columbus, New Orleans, and Omaha) Garbin, Salomone, Jackson, and Ballweg found that approximately one-half (46 percent) of the sample participated in an academic or college oriented course of study, more than one-third (38 percent) in a general course and a very small percent (14.2) majored in a vocational program. . .For both white collar levels and the high skilled blue collar group, from one-half to two-thirds of their members participated in an academic program. Approximately one-half of the blue collar low interviewees had majored in a general program of study while in high school. . .In sum, high school program and job category are significantly related. White collar workers have vocational preparation on the high school level less frequently than do blue collar workers. Blue collar highs have fewer "general" students and more academic and vocational students than do blue collar lows. . .General and academic high school preparation was considered more useful in white collar than blue collar jobs.

Ruebens (1974) has contended that the most common finding of existing studies of vocational education is that vocational graduates obtain their first jobs more quickly and, subsequently, experience fewer and briefer spells of unemployment than others with a high school education. But the evidence is by no means conclusive.

Evans (1973) has suggested that it is not only a matter of insufficient vocational training opportunities but the unevenness of such opportunities across occupations. He states:

> "The existing situation is that the formal education structure provides extensive preparation for work in certain occupations and little or none in most occupations. Society provides a great deal of moral and financial

support for university graduate schools. Each program in these schools has as a central focus the preparation of people for work. Graduate school is the capstone of education for vocations in many of the academic and professional disciplines. . .Similarly a high proportion of students in four-year colleges are enjoyed in programs which prepare them for work as journalists, teachers, nurses, engineers, farm managers, etc. For all of these students there is substantial tax support. . .Far fewer opportunities are available for preparation for work in occupations requiring less than a four-year college degree for entrance. . ."

Indeed, Jacobs (1973) has reported that the Federal Government invests $14 in the nation's universities for every $1 it spends on vocational education programs and $4 in remedial manpower programs for every $1 it invests in preventive manpower programs.

Schaefer (1971) contends that by any standard, the student who prepares for higher education is favored over the student who prepares for work. He observes that in the occupational area particularly, time and circumstances have combined to produce serious gaps between the needs of students and the services provided by their schools (p. 119).

Ciavarella (1972) has argued that such thinking also pervades the thinking of the student. He states:

"The student realizes that it is far more prestigious for him to say, 'I'm taking vocational shop.' Therefore, the student is more inclined to select a curriculum on the basis of its social-status worth, regardless of its educational or vocational appropriateness for him."

A somewhat different but related issue is, if the K-12 school system is college oriented, is it preparing students appropriately for college? Again, statistics suggest not. Among the most stable of statistics is the college drop-out rate. Wise (1965, p. 12) has reported that across the nation as few as three out of five students stay continuously to college graduation. Carlson and Wegner (1965) report that 50 to 60 percent of those students who enter 4-year college degree programs fail to complete them within 4 years and at the institution of original registration. Herr and Cramer (1968, p. 99f), after examining considerable research about persistence in college, reported that persistence and attrition are related to curricular objectives. If the objectives are unclear to students, college courses seem to be series of objectives to surmount in order to get a degree. Further, the dropout is not necessarily one who lacks intelligence but is typically more likely than persisters to suffer shallowness of motivation, lack of adequate work habits, immaturity in attitudes, outlook, and application. While the years of school which precede college cannot be expected to overcome all the deficiencies the students who drop out possess, it is true that one might expect students to arrive at college with the understanding that college is not an end in itself but an intermediate vocational or career decision, with adequate work habits, and with more than a superficial grasp of basic academic skill.

The assertion that high schools are too much of a college oriented bent, is also reflected in criticisms of counselors' affect. A frequent observation is exemplified by Shapiro and Asher (1972) who state that: High school counselors are characterized as spending a majority of their time counseling students from high socioeconomic families about their college plans. It was found in a national

study (Purdue Opinion Poll, 1968) that students from a high income family were likely to have seen a counselor several times. This was not found to be true, however, of students from lower income families. They report also the findings of Betz, Engle, and Mallinson (1969) that "when noncollege-bound students were asked who most influenced them in making future educational and vocational decisions, 34 percent indicated that their own experiences had influenced them, 29 percent mentioned their parents, 13 percent indicated their peers, 10 percent mentioned their teachers, and only 7 percent indicated their counselors to be influential." Similar data are reported by Kaufman (1967) who found that academic students were more likely to receive guidance than vocational students. Only one-half of vocational students compared with three-fourths of academic students recalled discussing the selection of their courses with a counselor. Actual discussion of job plans was even less frequent, with one-fifth of the vocational and one-third of the academic students receiving assistance.

In support of such findings Davis (1968) reported in a study of the vocational guidance now provided to noncollege bound students in 72 east Tennessee junior and senior high schools that only 7 percent offered occupation units geared to the needs of noncollege bound students. In 1968, Campbell reported the results of a national survey of vocational guidance in secondary education among 353 schools representing urban comprehensive, rural comprehensive, urban general academic, rural general academic, urban vocational, and area vocational-technical. Among the selected findings of this survey were:

1. Learning about the world of work and study habits counseling were least frequently checked as available and most frequently checked as needed by students.
2. Although 81 percent of the students indicated that they had an opportunity to read publications about occupations, 35 percent of them checked that the kind of job information they wanted and needed was not readily available in their school. Sixty-three percent of the rural comprehensive and 59 percent of the rural general academic students indicated that they had not had the opportunity to read occupational information, compared to 19 percent for the four other types of schools.

In sum, then, the data and perspectives available tend to confirm the fact that American public schools have a college-orientation program. More important, perhaps, is the fact that this orientation tends to crowd out educational responses to needs of large numbers of students whose aptitudes and goals do not include college as a valued outcome. In one sense, the level of abstraction of many of the courses offered in the public school context are seen as unrelated to either the learning styles, intellectual capability or orientation, or career interests of the majority of students. In another sense, the investment of the educational dollar is seen as too much focused on colleges and universities rather than vocational and technical education.

## Potential Contribution of Career Education

Career Education, by definition, represents a set of educational ideas of which vocational-technical education is a valued part. To manifest the outcomes which career education represents—e.g. opportunities for individual choice, opportunities for a broad spectrum of human talent to be valued, responsiveness to the

dynamics of the occupational structure–requires a considerable loosening of the boundaries within which current educational programs are mounted. Thus, career education can be a stimulus to reorganization of educational priorities and programmatic responses. It can also provide the context in which individual learning styles and developmental characteristics become major ingredients of educational planning. Abstractions in subject matter can be diminished without losing the viability of the reason for teaching certain material–career education represents a collection of ideas and purposes around which such a condition can be effectively conceived and purposes for learning for reasons other than college attendance can be legitimized.

## Condition 4

The fourth condition cited is a composite one: *Too many persons leave our educational system at both the secondary and collegiate levels unequipped with the vocational skills, the self understanding and career decision-making skills, or the desire to work that are essential for making a successful transition from school to work.* Since there are really three issues incorporated they will be dealt with separately.

**A. Vocational Skills.** There are a number of markers which indicate that adolescents, whether high school or college products, dropouts or persisters, are inadequately prepared to make an effective transition from school to work. While it is hard to know what part a lack of vocational skills plays in such an outcome, there is evidence that such a condition exists. Maier (1965) has shown that in comparison to older workers, youth have higher accident rates and higher turnover. The U.S. Department of Labor (1968) has reported that the ratio of teenage unemployment to overall unemployment has risen sharply since 1957 and is now more than three times the overall rate of unemployment.

Eggeman, Campbell, and Garbin (1969) queried a national sample of 763 Youth Opportunity Center counselors from 48 of 50 States about the major problems faced by youth in the transition from school to work. Eighty-six percent (686) of the counselors indicated that the major problem was job preparation. This included inadequate training, inadequate job skills, lack of information about work and training opportunities, lack of knowledge of real demands of work-employer expectations, lack of education requirements, and lack of prior work experiences. Slightly more than 71 percent of the counselors indicated a third ranked category of worker adjustment as vocational behavior. Included were such emphases as poor work habits (absenteeism, tardiness, etc.), inability to fill out forms and handle interviews, inability to get along with fellow workers or to cope with real demands of work, poor attitudes toward work, etc.

According to Levitan, Mangum, and Marshall (1972) employability is a function of workers' preparedness for work, as well as employers' needs and prejudices (p. 36):

> "Unemployment varies with educational attainment, and this difference tends to be reflected in rates of unemployment by occupation. Professional and technical workers–many are college graduates–have averaged 2 percent or

less unemployment in any year since occupational unemployment rates were first regularly measured in 1958. The rate for laborers – many of whom did not complete high school – has never averaged less than 6.5 percent and has been as high as 15.0 percent. . . .Obviously, inadequate preparation consigns a worker to the end of the unemployment queue and the top of the layoff list. The program implications are clear: Improved education and training can increase the supply of relatively skilled workers and rescue some of the unskilled from the cycle of recurring unemployment and underemployment" (p. 37).

The need for rising levels of education and training, whether or not described as yielding vocational skills, has been exacerbated by changes in the occupational structure. The proportion of jobs in the less-skilled, laborer, operative, and farming occupations has dropped substantially since the late 1940's – from over 4 of every 10 jobs to less than 3 in 10 by 1969. At the same time, the more demanding white-collar positions have risen to nearly 5 in 10 from 3 1/2 in 10. However, this does not necessarily mean that youth employment opportunities have been adversely affected, because education has kept pace with the increased demand for higher skills.

Since 1940, the proportion of workers with high school diplomas has doubled and the proportion with college degrees has tripled; the median school years completed has risen from 9.1 years to 12.3 (Levitan, Mangum, & Marshall, 1972, p. 61). These phenomena led Wolfbein (1968) to state that:

> Anyone who does not measure up educationally is going to be at an increasing disadvantage in the competition for employment under this double-barreled challenge: the *qualitative* dimension represented by the increasing complexity of jobs under the impulsion of advancing technology and the *quantitative* dimension of the increasing numbers and proportions of workers who do have the requisite educational background (p. 97).

Related to these points is the fact that in 1964 Folger and Nam indicated that "between 1940 and 1960 about 85 percent of the rise in educational attainment may be attributed to increased educational levels within occupations, and only about 15 percent to shifts in the occupational structure from occupations requiring less education to occupations requiring more." However, Gannicott, and Blaug (1973) have pointed out that there are two equally plausible hypotheses to explain this data. "One explanation is that the generally rising demand for better educated workers reflects the growing requirements for specific skills. That is to say, changing productive processes require a shift in the education associated with each occupation. . . .The other equally plausible hypothesis is that the rising educational level of the labor force may be quite unrelated to the production requirements of the economy, being related instead to a subtle change in the educational standard of living of the population" (p. 59). This latter interpretation, of course, suggests that when we observe rising vocational skill requirements or, indeed, higher educational requirements of any kind, this is not necessarily a demand-inspired shift in the occupational distribution but instead a relative upgrading of skill requirements by employers because of a supply-inspired rise in educational attainments (p. 60).

To continue with the point of supply/demand considerations Levitan *et al* point out that it is interesting to note that education had little relevance to

employment for most of the labor force until after World War II. As a function of the demand for technical and craft skills in war production and the demands of maintaining and administering massive and complex military operations, formal education became tied to employment requirements. The GI Bill of Rights and the rising requirements of technical achievement in the 1950's and 1960's have continued to spur such relationships between education and work. However, it is now very difficult to separate the available supply of educated workers (if you accept a high school diploma or college degree as evidence of such status) from the actual job demands for such education. For example, 38 percent of laborers had a high school education or better in 1970 as compared with 16 percent in 1952 (Levitan, Mangum, Marshall, 1972, p. 95). Does the content of a laboring job now require this level of education or do employers hire those with more education because they are available and because they assume that those of more education will also be more productive and promotable? Thus, rising educational levels seem to be spurious indicators of the availability of persons with or without vocational skills but they indicate that pressure for their availability in the labor supply will continue.

Another frequently cited indicator that youth are unprepared with vocational skills, but by no means an unequivocal one, is the unemployment rate. For example, as noted previously the ratio of teenage unemployment to overall unemployment has risen sharply since 1957 and is slightly more than three times the overall rate. Although it will be more fully treated in the final section of this paper, it is also necessary to note that unemployment is not distributed evenly among youth. Non-white youth, poorly educated youth, and youth with a lower socio-economic class background all experience higher rates of unemployment in general (U.S. Department of Labor, 1968).

Another way of viewing these phenomena is found in the fact that unemployment among teenagers exceeded 12 percent for every year of the 1960's. . . . In 1960 teenagers seeking work showed an unemployment rate of 3.3 times that of the 25 and over age group. By 1964, the rate had risen to 4.3 and by 1970, to 5.5. The overall joblessness rate among the 16-19 age group in 1971 was just under 17 percent, a rise of more than 4.5 percent from 1969 (U.S. Department of Labor, 1972). In 1972-73, overall unemployment among school dropouts was over 23 percent; the rate for non-white was about one-fourth higher.

As Miller (1973) has observed, the fact that joblessness among young people has increased although school dropout rates continue to fall, demonstrates that the relationship between education and employment is not a simple one. This observation is supported by Marland's contention (1971) that by 1975 the unskilled are expected to account for less than 5 percent of the labor force or something in the neighborhood of 4.5 million jobs. "Yet Bureau of Labor Statistics projections indicate that we will still have more than 3.5 million young people with no salable skills trying to squeeze themselves into the sad 5 percent category." Shertzer and Stone (1971) have pointed out that as of April 1970, the unemployment rate for youth from 16 to 20 years of age was 13.1 percent as compared to an overall unemployment rate of 4.3 percent. They further note that the percentage of unemployment among unskilled workers is twice as high as among all other job categories.

## B. Self-understanding and Career Decision Making Skills

Perhaps the transcendent question related to being equipped with vocational skills is what are they? The typical assumption is that they are technical skills directly related to accomplishing the work tasks found in a particular occupation. However, observers increasingly suggest that such a conception of vocational skills is too narrowly based; that students must also acquire the skills and attitudes which make up employability in broader terms. Indeed, Garbin, Salomone, Jackson, and Ballweg (1970) analyzed worker adjustment problems of youth and concluded that youthful employees often fail on their jobs, not because they lack technical competencies, but because of the absence of skills relating to the nontechnical complex. Reubens (1974) has reported that basic literacy and good work attitudes may be more important for employment than occupational skills. She contends that an increasing number of employers already look for these qualities rather than for traditional vocational skills.

In the study by Eggeman, Campbell, and Garbin (1969) previously cited 78.2 percent of the Youth Opportunity Counselors surveyed reported that personality problems hamper youth's adjustment to the world of work. More specifically, 72 percent mentioned job-seeking and/or on-the-job behavior as a major problem. A growing number of theorists contend, as does Blocher (1973), that "as work-oriented value systems are no longer structured solely around either religious sanctions or economic necessity, the psychological aspects of man's relation to work become increasingly a determinant of the values through which he involves himself in work. . .a way of organizing life in some psychologically meaningful and need-fulfilling way."

After reviewing the research of Fleishman (1968) and Ley (1966) among others as well as their own research, Garvin et al contended that "The basic difficulty of many youth is not that of finding a job but in keeping one. . . . Thus, in the work environment the young worker is enmeshed not only in his job, but also in the complex norm and value systems of the informal structure and, to a lesser extent, in those of the formal organizational structure." The conclusion seems inescapable that the transition toward an adequate work adjustment involves being subjected to a socialization process directed toward learning the "ways and means" of these two organizations. As a function of their research on the adjustment of 642 young workers in Columbus, New Orleans, and Omaha they found that the most difficult kinds of things the workers had to learn on job performance were reported to be: Technological (46.7 percent); interpersonal (19.2 percent); personal (14.8 percent); and organizational (4.3 percent). They indicated that a preparation for work involves more than inculcating prospective workers with technological skills. Significantly, an overwhelming majority of the sample had a positive evaluation of work.

In a related study, Garbin, Campbell, Jackson, and Feldman (1967) also reported survey findings which suggest that the maladjustment of secondary students in the work place may be more highly related to poor interpersonal skills than to inadequate technical skills. Garbin, Jackson, and Campbell (1968) and Stogdell (1966) reviewed research literature which tends to support the above conclusion.

Implicit in these observations about the inclusion within vocational skills of interpersonal skills and other psychological work adjustments is the fact that persons need to come to terms with a variety of personal questions and with clarifying their self concept. This is true not only in the public schools but also in higher education. Hoffman (1973), in discussing self-understanding for productive living, has observed that "...the questions teachers should be encouraging students to ask are 'Who am I?' 'What influences me?' and 'How can I control the influences upon me?' Once these answers are found, or at least sought, the most neglected area of education will take its proper place as the most important," (p. 79). Livingston (1970) has viewed the matter in the following perspective: "One reason university graduates have had so much difficulty making the transition from academic life to the world of work is that they have failed to develop in school the self-identities needed to enable them to make firm career commitments. Their formal education has not nurtured the traits of individuality, self-assurance, and responsibility or developed the attributes that would permit them to become active agents in their own career success," (p. 40).

Jerome Bruner (1973), noted authority on child development and the nature of learning, recently stated that "the neuroses of the young are far more likely to revolve around work than around sex." The delay of vocational or job decisions fostered by our school system has provided difficulty for students to identify themselves in adult roles. He suggests that the "first order of business in the transformation of our mode of education is to revolutionize and revivify this idea of vocation or occupation."

One can interpret from the weight of evidence and speculation thus far presented that students are leaving the school system without self-understanding and career decision-making skills but the importance of these dimensions can be further extended. These personal elements are important both in and out of school. For example, Sievert (1972) has reported that shop achievement is related to the degree of congruency between the self concept and the occupational concept of the subject matter: there is a positive relationship between the self-occupational congruence and shop achievement. Indeed, Sievert has suggested: "It may be that a partial reason for a student's acting out against his environment in the school shop or laboratory is due to the placement and retention of the student in a setting that is not congruent with his perceived self concept."

Herr (1972) has reported that virtually all career development research indicates that students need self-knowledge. Specifically, they need to be able to differentiate personal values and personal interests as these are related to personal strengths and weaknesses in abilities- verbal, quantitative, scholastic. They need to be able to assess these elements of the self, incorporate their meaning into the self-concept and relate this self-information to the choices with which they will be confronted.

O'Hara (1966) has demonstrated that the self-concept relates not only to occupational choice but to high school achievement as well, and that these relationships increase from 9th to 12th grades. The implication of such a correlation is that students who persist in school are those who can find meaning in what they are learning or the necessity for an education in relation to what

they want to do; those who do not find such a condition in school drop out. These relationships apparently function even earlier than the 9th grade. Williams and Cole (1968) report that measures of self-concept at the 6th grade are significantly and positively related to the child's conception of school, social status at school, emotional adjustment, mental ability, reading achievement, and mathematical achievement. Oakland (1969) also reports relationships between levels of high school achievement and a variety of personal traits manifesting self awareness, responsibility, and planning. Such constructs also operate at the college level. After an extensive analysis of college inputs and outputs, Herr and Cramer (1968, p. 116) were led to conclude:

> The importance of desiring what one has chosen rather than being at the whim of others without any personal investment in the choice is a factor in academic success. Vocational ambitions and/or appropriate goals are very important. Men and women students with identifiable educational goals–reasons which are related to why they are doing what they are doing–seem consistently to be better prepared for college than students who have no such reasons for being in college.

Condition Two of this monograph has reported other studies dealing with self-concept and with high school achievement. Similar relationships have been established for college populations. In addition to the observations of Herr and Cramer just cited, apparently, the decision to attend college at all is related to the self-concept. For example, it has been reported that a college student asked to picture himself as an adult without a college education will experience a significantly lower evaluation of self and a decline in his feeling of strength and power (Sinnett and Stone, 1964). Hammond (1959) reported a 1956 study in which G. B. Carson and others at The Ohio State University had hypothesized that if a student's self concept differs from the role expectation of his college, his motivational level may decrease; they also hypothesized that a student who is easily reoriented may tend to succeed more easily than one who is not. Hammond found these hypotheses to be valid. Nadler and Krulee (1961) found compatibility between personal needs and the objective features of school situations to be major factors in higher grade point average. As Herr reported in 1965, "it has been found that students majoring in different fields of study exhibit different personality characteristics and different expectations of educational experiences, that dissimilarity between the student and those with whom he studies (faculty) or learns (peers) is related to change in major field, and that the percentage of the students in a student body who major in particular subject areas is related to the institutional image or press."

Applying such concepts to the secondary school level has demonstrated that there are relationships between self-concepts, achievement levels, and perceptions of evironmental expectations (Herr, Warner, and Swisher, 1970). In one related study (Hansen and Herr, 1966) it was found that chronically truant students perceived significantly more press for academic competition, for collegiate aspirations, for planning and structure, for looking and acting properly, for heterosexual activities than did a control group of students not chronically truant. Apparently, the chronically truant either did not understand the reasons for these environmental demands or they had not achieved ways of

coping with them which were successful or rewarded in the high school they attended. Thus, they chose to escape from it through absenting themselves from exposure to these demands.

Collectively, these analyses of the self-concept and its relationship to educational achievement or compatibility with a particular collegiate or secondary school environment reinforce the importance of students acquiring self understanding as they consider their options either in education or in career. This perspective is reinforced by studies dealing with the relationship between specific personality traits and vocational choice. For example, correspondence between needs, vocational interests, and curriculum areas was found in a study by Osipow, Ashby, and Wall (1966) which showed that personality identification of students (following Holland's model) were related to their initial vocational choices. Sharf (1970) stated that male students report interest as more significant than ability in vocational decision-making, although the difference is not so great as the 2:1 ratio reported by Holland and Nichols (1964). Another personality variable which seems to be related to vocational choice is risk taking. Early work by Ziller (1957) found a significant relationship between vocational choice and a propensity for risk taking. Subsequent studies (Burnstein, 1963; Mahone, 1960; and Morris, 1966) also found evidence that risk taking plays a part in decision-making. There is also considerable evidence that what an individual values both in work itself and in the rewards he perceives work as offering has an effect on his vocational decisions and is internalized fairly early in development (Super, 1962; Thompson, 1966).

While many more studies could be cited, the point should be sufficiently made that vocational skills include the attitudes and knowledge related to effective choice-making. Although studies like those of Tierney and Herman (1973) indicate that many students do not have the skill to make realistic self-estimates and that such a skill apparently is not being developed by schools, very little specific information is available which indicates specifically that persons emerging from the school system do or do not have such understanding. However, to the degree that the earlier sections of this paper—those dealing with the essentially cognitive focus of education and its college oriented tilt—are valid, it would be difficult to know where such self-understanding is currently being cultivated. The rise of the affective education and psychological education movements over the last few years are testimonies to these deficits in American Education. Roen (1967a, 1967b) among others has argued that only through "education for choosing" will individuals become more competent choosers.

Apparently, self-understanding and career decision-making have been assumed to occur as by-products of "general or academic" education both at the K-12 and post-secondary levels rather than as deserving immediate and direct attention in their own right. As indicated throughout this paper, schooling is work-relevant, yet it's relevance to work is rarely called to the student's attention. Psychological tests are given for reasons not specifically or directly related to work and their relevance to such a focus is typically not identified to the student. Simply through the process of development, growth and learning, the individual develops personality traits that have relevance for work and career planning, but the data that are available suggest that the individual ordinarily has little organized knowledge of their nature and amount.

If the self-understanding basic to career planning is not being pursued in education, it appears that the other dimension of such planning–knowledge of one's job alternatives–is not being uniformly addressed either. The fact that many youth lack information about work and training opportunities has long been recognized and much relevant information has been reported (Hoppock, 1967; Shartle, 1959; U.S. Employment Service, 1965; Eggeman, Campbell & Garbin, 1969). A study by Krasnow (1968) demonstrates that 9th-grade students who choose vocational curriculums have a lesser amount of vocational information than those who choose academic curriculums, even though they make the narrower decisions. In addition to a lack of information about occupational opportunities per se, the society has also been exceedingly ambivalent about affording youth work opportunities by which they can test at first hand their degree of fitness with the responsibilities inherent in working or the factors which distinguish different work styles.

As Coleman (1972) has indicated youths' movement toward adulthood is affected by several factors reducing the kind and quality of information they receive. For one, the family, for most of recorded history, had been the chief educational institution for the child because he carried out most of his activities within it until he left to form his own family; but, in recent decades, the family as a source of occupational learning has declined as it lost its place as the central productive institution of the society. Second, changes in the workplace have also affected the movement of the young into adulthood. "The major changes have been away from small organizations to large ones; away from ad hoc informal hiring practices to formal procedures with formal credentials required of applicants; away from using children in secondary and service activities toward excluding them from workplaces under the 'guise' of 'protection;' away from jobs requiring low educational credentials toward jobs requiring more education; away from loosely organized occupational settings in which workers participated with varying schedules and varying amounts of time toward a rigidly defined 'full-time job' with a fixed schedule and fixed time commitment." Some support for Coleman's observations on the lessened effects of the family is available in existing research. In a 1963 study of 1,000 Chicago Male Subjects, Duncan and Hodge found only a 10 percent incidence of sons entering their fathers' occupations. For the majority, then, there is increased responsibility for personal decision-making concerning vocational plans at a time when options have become numerous and puzzling and when youth have less acquaintances than did their forebears with some essential elements of choice (Borow, 1973, p. 351).

Together these trends have transposed to the school a requirement to acquaint the young with alternatives that have not been required historically. In the process, they have imposed on the schools a constant need to redefine priorities and to become a surrogate for parents and other social institutions.

### C. The Desire to Work

In an earlier era when education and work were essentially confined to two separate and independent phases of life, little was said about the school's responsibility to instill in youth a desire to work except perhaps by causing

students to want to do so as an escape from the sterility, rote, and repression characterizing many classrooms. However, since the early 1960's such a requirement has been reinforced by advocates of vocational education and, more recently, of career education. Hoyt, Evans, Mackin and Mangum (1974, p. 69), for example, state the issue as follows:

> The industrial work ethic is eroding, and a postindustrial work ethic has yet to develop. But it seems indefensible to fail to teach youth that employers do value the traditional work ethic and that major violations of it will lead to discharge. The failure of the school becomes more serious as the home and the peer group seem less and less able to teach the needed lessons. The high rate of job changing and unemployment which characterize dropouts and non-vocational graduates prior to about age 25 may be largely explained by this failure.

While as previous sections of this paper have shown, many young workers have trouble adjusting to first jobs because of personality traits, poor attitudes toward supervision or other attitudinal factors, this does not necessarily mean that the desire to work has eroded in the majority of youth. What existing literature seems to suggest is that there are sub-groups within the youth culture who reject the traditional work ethic, materialism, and conventional social norms as they understand them but this is not necessarily so for all. Yankelovich's studies from 1968 to 1971 of the attitudes of national samples of college students found the following:

- Seventy-nine percent believe that a meaningful career is a very important part of a person's life.
- Eighty-five percent feel business is entitled to make a profit.
- Seventy-five percent believe it is morally wrong to collect welfare when you can work.
- Only 30 percent would welcome emphasis on working hard (Yankelovich, 1972).

Somewhat similar findings are found in the Survey of Working Conditions, a study conducted by the University of Michigan's Survey Research Center. In essence, these findings suggest that young workers find a significant gap between their expectations and values vis-à-vis work and what they actually experience on the job. They value challenging work highly but say that the work they are doing has a low level of challenge. The conclusions reached in the various studies contributing to the above findings are that "it does not appear that young workers have a lower commitment to work than their elders. The problem lies in interaction between work itself and the changing social character of today's generation, and in the failure of decision makers in business, labor, and government to recognize this fact. . . . The young worker is in revolt not against work but against the authoritarian system developed by industrial engineers who felt that 'the worker was stupid, overly emotional, insecure and afraid of responsibility.' " (Special Task Force to the Secretary of Health, Education and Welfare, 1973, p. 49-50).

Blocher's (1973) observations seem pertinent here as he says: "When the society installs a value system based upon an evaluation of work primarily in terms of its opportunity for psychological self-fulfillment, it creates a very high

level of expectation. However, when large numbers of people in the society—because of cultural or educational deprivation or sheer lack of ego-involving jobs—are prevented from relating to work in psychologically meaningful ways, it is not surprising that work is devalued, commitment is kept minimal, and alienation from the World of Work is profound" (p. 62).

It seems fair to suggest on the basis of the limited but reputable evidence available that the assertion that too many persons leave the educational system without the desire to work is fallacious. The problem seems not to be with the desire to work but with the available possibilities for persons to enter work which is personally satisfying and meaningful or, indeed, appropriate to the level of educational sophistication growing numbers of persons bring to the labor market.

## Potential Contributions of Career Education

Perhaps as much as in any of the conditions addressed in this paper, career education offers promise of bringing balanced response to the affective dimensions of vocational skills, to self understanding and career planning and attitudes about work. Virtually all current definitions of career education assert the importance of education for choice, for helping youth incorporate the sense of power and purpose inherent in being an informed and effective choice maker, and for helping them understand that knowledge of personal characteristics allows one to evaluate possible alternatives and identify information which is personally pertinent from that which is not. In essence, career education can provide the impetus to help educators of all types recognize that the transcendent goal of education is not simply helping youth acquire the fairly limited skills required to be a competent person. Instead the task is to help them attain personal competence which includes technical skills as well as the values, attitudes, understandings which permit them to use such skills wisely and effectively. Finally, career education can reinforce the importance of the employment sector modifying itself, creating jobs which respond to the growing sensitivity and sophistication of youth vis-à-vis meaningful work. If this does not occur systematically much of the effect career education can have on individual purpose will be lost.

## Condition 5

(10 in the original U.S. Office of Education paper). The final educational condition which this paper will address is the assertion that *American education as currently structured, does not adequately meet the needs of minority, nor of economically disadvantaged persons in our society*. In a sense responses to this assertion can be found in each of the previous four sections but need specific focus here. Women and girls will not be independently considered as either a minority or as disadvantaged because another background paper being prepared for the U.S. Office of Education will address this group specifically.

## A. Perspectives on the Disadvantaged

Margolin (1968) names several segments of the American population as forming the nucleus of those referred to as disadvantaged. He includes blacks who constitute the largest number and percentage, a large portion of the American Indian, Spanish, Mexican, and Puerto Rican populations living under poor conditions, and the poor Appalachian rural dweller. The conditions of life of the disadvantaged range from "the seemingly limitless space of a New Mexico reservation to the jammed squalor of a Harlem tenement."

In discussing disadvantaged populations, Hess (1968) has stated:

As it is now being used in the field of education, it refers to a number of groups which have been in previous times called by other names "deprived," "lower class," "underprivileged" or simply "poor." It is obviously not a precise term. It reflects inversely, the general lines of prestige and privilege in the society. The essential point of the concept of disadvantaged groups is that there are social, cultural, and economic circumstances which act systematically to prevent children in certain places and with certain characteristics from obtaining adequate education, income, and dignity. In this view disadvantaged is a group phenomena. In a more accurate usage, however, disadvantaged may refer to any condition which prevents an individual from being educated to the maximum of his genetic potential (1968; pp. 95-96).

Margolin (1968) points out that one who works with a disadvantaged child or adult will observe several crucial obstacles to educational-vocational development. They are weakness of the capacity to defer gratification, a difficulty in orientation to the future, apathy, hostility, suspiciousness, and an inability to cope with changed circumstances.

Amos (1968), in discussing the nature of disadvantaged youth, cites additional problems: Limited development of communication skills, lack of skills necessary for financial management, often acquired police or institutional record, lack of motivation, deficiencies in understanding procedures of all types, slow learner, lacks trust, incapable of setting long-term goals, often sets unrealistic goals, and boys often lack a male-role model.

In describing common basic needs of all disadvantaged youth, Feck (1971) reports: (1) Security and stability in their environment; (2) successful educational experience, (3) recognition for achievement, (4) love and respect, (5) legal sources of finance, (6) financial management, (7) proper housing, (8) good health, (9) development of basic communication skills, (10) saleable work skills, (11) an appreciation of the meaning and importance of work, (12) successfully employed or adult peer group models, (13) positive self concepts, (14) job opportunities and qualifications, and (15) socially acceptable attitudes and behaviors.

Gordon has contended (1974) that "those populations which experience the highest incidence of social disadvantage include the blacks, Puerto Ricans, Cubans, Eskimos, native Americans, Chicanas, the orientals to some extent, and the white members of the lowest economic class. The problem of limited employment opportunities confronting members of the various ethnic and minority groups at the ages of 20 through 24, when some vocational stability might be assumed, is illustrated by the fact that, according to the 1970 census,

only 1,261,000 of this total national population of 2,089,194 were actually employed in January 1972. Bureau of Labor Statistics also reveal that approximately 40 percent of the ethnic minority populations in this country were unemployed in January 1972," (p. 452).

The following sections will examine specific variables in relation to several of the largest minority populations.

## A. Basic Academic Skills

An analysis of achievement tests was made in the Lindsay Unified School District of Lindsay, California, a city of 5,500 located about midway between Fresno and Bakersfield, an agricultural community with a high proportion of Mexican-Americans. In reading, 63.9 percent of the Mexican-American children were below grade level compared to 27.3 percent of the Anglo-Americans. In arithmetic, 38.7 percent of the Mexican Americans were below grade level, compared to 20.8 percent of the Anglo-Americans. In language, the comparative percentages were 55.5 and 30.6 (National Education Association, 1970).

Gallarza, Gallega, and Samora (1969) reported that the median number of school years attained by Mexican Americans 14 years old and over is as follows: Arizona 8.3; California 9.2; Colorado 8.7; New Mexico 8.8 and Texas 6.7. In addition, they report that "The Berkeley Branch of the University of California recently listed 77 Mexican-Americans among 25,000 students. The University of California at Los Angeles had 70 Mexican-American students in a campus enrollment of 26,000."

Speaking to the plight of migrant children, many of whom are Spanish in extraction, Glick (1966) reported that:

> It has been estimated that more than 50 percent of the 100,000 school-age migrants in the nation are from one to four years behind in school by the time they reach the age of fourteen. Seventy-five percent of the 3,800 school-age migrants in Colorado each farm season are Spanish-speaking; 67 percent or more are retarded in age-grade status; 95 percent are socially retarded; and 90 percent of them need to make up school work (p. 99). Scholes (1966) reported that in a study of 665 Spanish-speaking migrant families in Texas some few years ago only 32 percent of the children had 30 weeks of schooling (p. 69). Grekler (1966) observed that in 1960, about 118,000 Spanish-speaking had absolutely no formal schooling and about 75 percent of these lived in urban areas where school systems are said to be more effective [as compared to rural]. Over 49 percent of Spanish-speaking in the southwestern states had less than eight grades of schooling (p. 180)."

Grekler (1967) and Moore (1970) have reported that in 1960, in the Southwest, adult Mexican-Americans had, on the average, 7.1 years of schooling as against 12.1 for Anglos and 9.0 for nonwhites. If the Anglo record is taken as a norm, the gap was 5 years or 41 percent for Mexican-Americans and 3.1 years or 26 percent for nonwhite, (p. 3).

According to Bernal, (1969), the average Mexican-American drops out of school by the 7th grade. In Texas almost 80 percent of students with Spanish surnames drop out before completing high school. In California, 73.5 percent of the State's Mexican-American students do not complete high school. Samora

(1963) has reported that, "Texas, in ten out of fifteen metropolitan areas, has Spanish populations with 40 or more percent having less than 40 years of schooling."

Johnson (1969) has indicated that Mexican-Americans average 8 years of schooling, 2 years less than Negroes and a full 4 years less than whites. . . In Texas, 40 percent of 'Chicanos' are considered functionally illiterate.

Turning to the black population, Silberman (1970) has reported that: In the third grade, for example, the avera_ black in the Metropolitan Northeast is 1 year behind the average white student in reading ability; by grade six, he is more than a year and a half behind; by grade nine, he is more than 2½ years behind; and by the twelfth grade, he is nearly 3 years behind the average white (pp. 64-65). He further asserts: . . . . In fact, virtually every firm that has attempted any large-scale hiring of so-called "disadvantaged" or 'unemployable' men and women has found it necessary to provide, among other kinds of training, teaching in basic skills of reading and computation, (p. 67).

Rohwer (1971) maintains that at virtually every grade level, differences in the degree of school success attained vary with a number of student characteristics such as ethnicity, socioeconomic status (SES), and I.Q.; thus, school success depends on a variety of factors other than ability to learn. He continues that "it has been established that white children are more successful in school than black children, high-socioeconomic status (SES) children succeed more often than low SES children, and high IQ children succeed more often than low IQ children. He then goes on to argue that school success does not depend directly on learning ability. In particular, he presented research findings which indicated that low-SES black children are capable of achieving the same degree of school success as high SES white children even though in general they do not. Three answers were suggested to why they do not in the studies he reviewed. "First, low SES Negro children come to school with less developed learning tactics than high-SES white children. Accordingly, they learn less during their early school years, especially the kindergarten year. In fact, what they probably lea:n less of during that year is information relevant to later school-subject content. Second, even though the basic learning skills of low-SES black children improve almost to the point of equality with those of high-SES white children by the time they are into the first grade year, these skills are not quite as well honed for some modes of presenting information as they are for other. . . Finally, it is reasonable to suppose that, to an even greater degree, black children have not adequately mastered the skills necessary to learn successfully under classroom learning conditions" (p. 205-206). Thus, in his view, these children need to be assisted in mastering elaborative learning skills, to actualize children's capacity for imaginative conceptual activity through concrete, explicit, and specific instructional programs.

Turning to other pertinent demographic characteristics, in 1973 blacks accounted for about one-fifth of the unemployed, 22 percent of those with inadequate employme.' and earnings, and about 16 percent of labor force participants with less tha.. a high school education (Levitan, Johnston, and Taggart, 1974). In a study in 1969 of work satisfaction, it was found that of 107 subgroups of workers broken down into such socioeconomic characteristics as sex, race, age, and income, black workers under age 30 were far and away the

most dissatisfied with their jobs. Thirty-seven percent expressed negative attitudes toward their jobs. Further, it was found that twice as many blacks over 44 were dissatisfied with their jobs (Herrick, 1972).

In a study by the National Urban League it has been shown that blacks generally are just as anxious to work and get ahead as whites and in some cases more so. A marked work orientation is characteristic of most black families, for contrary to popular conception, black families place a strong emphasis on work and ambition. For example, according to census data, 69 percent of the heads of poor black families had jobs in 1969 compared with 53 percent for whites in similar circumstances (Urban League, 1972).

While the 1960's saw a marked reduction in the percentage of unemployed blacks of high school graduate age, their joblessness rate continues to be roughly double that of whites in the same age range. About 70 percent or more of blacks now leave high school as graduates, but this figure still lags behind that of whites as do the figures for earnings (U.S. Department of Labor, 1970). Marland has observed that of all the black girls under the age of 25, 30 percent are unemployed, a higher rate of joblessness than that suffered by the country during the Great Depression of the 1930's. The jobless rate among young black men stands at 25 percent. (Marland, 1971).

Speaking to the characteristics of Appalachian youth, part of the rural disadvantaged, Branscombe (1969) has reported that more than three-quarters of a million young people set in the hollows and hills unmotivated, uneducated, and unemployed (1969). Ackerson (1967) stated at the National Outlook Conference on Rural Youth that the incidence of incentive to remain in high school or in college was evidently not as great in rural America, as shown by the high dropout rate, and that in all too many cases, the educational and vocational opportunities offered to rural young people were quite limited. Udall (1967) indicated that one-third of the rural population accounted for one-half of the population designated as living in poverty. Bass and Burger (1967) pointed out that the American Indian is the most disadvantaged rural group. In comparison to the general population, their income was only two-ninths as much; their unemployment rate was almost ten times greater; their life expectancy was 7 years less; half again as many of their infants died; their school dropout rate was almost double that of the general population, and they had less than half the years of schooling.

Edington (1970) reports that all groups of disadvantaged rural students are characterized by poor educational achievement. This is supported by the report of the United States Department of Agriculture that about 19 percent of the rural youth had fallen behind at least 1 year and that only 12 percent of urban youth were that educationally retarded. Ohannessian (1967) and Bass and Berger (1967) have shown that the Indian student is nearly equal to the Anglo at the preschool and primary levels, but as he progresses through grade levels he falls behind. Each found that as Indian students went up the grades, their achievement seemed to fall progressively behind the school norms.

A persistent theme running through the data presented is not only that schools are not effectively educating minority and disadvantaged youth but that they may not know how to do so or that the majority values of the educators themselves get in the way. For example, Davis (1972), in exploring the failures

of compensatory education in America, contends that such programs are concerned "only with bringing the student up to a predetermined norm. In the process they ignore the possibility that the student might exceed a particular norm—or that a whole new range of norms may be more appropriate." He continues with an analysis of the insults and confusion which many schools impose upon the disadvantaged.

> "Branded failures in the primary grades, the children become victims of a self-fulfilling prophecy, whereby teachers expect little of them and cease to challenge them. Hence, by the fourth grade, a staggering number exhibit symptoms of alienation, withdrawal, and rejection of formal schooling in favor of a street education which teaches them skills more immediately relevant to their lives. Chicago's Blackstone Rangers are known to advise their young members to sleep in school for self-protection because the alternative they see is to accept the school's view of them as inadequate failures. . . .In short, both formal compensatory education programs and mass media compensatory education foster the same harmful notions. First, they teach people to internalize negative views of themselves, causing low self-esteem and anxiety and inhibiting the ability of individuals to actively mold their world. Second, they teach false lessons by promising rewards which they cannot deliver."

A somewhat different view of the matter is espoused in other research. Williams (1970) reports a study conducted in ten school systems in Maryland and nine major cities throughout the United States. In all, 5461 educators, elementary and secondary, teachers and administrators completed a questionnaire designed to identify the most critical needs of disadvantaged youth. The top five areas of need identified as critical by over 70 percent of the respondents included:

1. Improvement in basic reading and related language skills (89.6 percent)
2. Encouragement in establishing goals and aspiring to become what they can become (80 percent +)
3. Establishment of a personal sense of worth (80 percent +)
4. Encouragement of parents to take an interest in the formal education of their children (70 percent +)
5. Extension of the student's background of experience beyond his immediate environment (70 percent +)

Among the educational factors cited by the respondents as blocks to learning were such things as "uniform and large classes throughout the school or school system;" "unsuitable books and materials;" "system-wide policies and procedures which are inflexible for meeting the needs;" "inadequate help in diagnosing needs and developing programs for individuals and groups with reading problems;" "understanding the sociology and psychology of depriving youth;" "securing services for physical, emotional and social problems."

Clift (1970) maintains that:

On the evidence available, it must be concluded that the major reason why an increasing number of black students fall below their grade level in performance is that substandard performance is expected of them. The majority are in programs or curriculums where standards have been lowered 'to meet their ability' or 'to take into account their cultural differences.' Less is expected of such pupils,

they are rewarded for poorer performances, and the result is a steadily increasing gap between what they accomplish and what pupils of their grade level should accomplish. . . .The schools, probably unavoidably, are contaminated by the moral sickness or racism which afflicts the larger society. Yet all American children must be educated under conditions which will provide them with knowledge, skills, poise, goals, perspective, and other psychological equipment needed to deal constructively with other human beings who differ in race, custom, and culture."

## Educational and Occupational Attitudes

MacMichael (1974) has reviewed existing research on educational and occupation aspirations among minority youth and he has concluded that these data indicate a great ambivalence. At the same time that the school points to the path upward and encourages black youth to take it, the same school delivers the unmistakable message that the path will be too steep for them and that lower aspirations would be more realistic. Still, black students of lower socioeconomic status tend to have higher career and educational expectations than white students of a similar status.

At the same time, quoting a study by Michael Hindelang, MacMichael contends that there is a discrepancy between very high educational aspirations of black students (92 percent of black high school students interviewed were certain they would finish college; 80 percent believed their parents wanted them to finish) and low occupational aspirations. For instance, 30 percent of the black students who aspired to a college education did not aspire to a job requiring one.

A partial explanation for unrealistic vocational planning among some minority youth can be found in the research of Gottlieb (1967). In his study, which used as a sample 1,327 male adolescents (Caucasian and Negro) who were enrolled in the Job Corps, no support was found for the proposition that the lower-class culture has a built-in set of values that discourage social mobility. Rather, it appears that lower-class parents, although wanting their children to succeed, lack the abilities to help them move into more advantageous social positions and "there are few other adults in their lives who have the ability to help the youngster in both the business of goal clarification and goal attainment."

Zito and Bardon (1968) examined a similar phenomenon in terms of achievement imagery. In particular, they attempted to determine how Negro adolescents in an urban area perceive the probabilities of success and failure in both school and work. They found that achievement imagery, or the need to achieve, is equally strong in black adolescents from the same urban environment regardless of intelligence and type of program. However, they also found that school related material tends to threaten black adolescents with failure, even though work-related material arouses fantasies of successful achievement of goals. The subjects in this study, discouraged as they were with their present occupation (school), looked forward to a more optimistic future (work).

The effects of student self concept interacting with parental self concept also needs consideration. George (1970) studied the relationship between vocational aspirations, self-concepts, and vocational choices among a sample of adolescent

black males. The results provided evidence that the boys who had decided upon vocational objectives had higher self concepts and also higher ideal selves. This study also indicated that the vocational aspirations of the boys were related to the self concepts of their parents. The mothers of the aspiring and non-aspiring groups did not differ very much but the fathers of the non-aspiring boys had poorer self concepts than the fathers of the aspiring boys.

Stevic and Uhlig (1967) examined the concepts that youth from an Appalachian background have concerning their probable life work. When comparing a group of students remaining in Appalachia with a group of students who had migrated to an Ohio city, they found the following:

1. Appalachian youth who stay in the geographic area have a significantly lower aspirational level than do those students who are native to an urban area.
2. Youth who remain native to Appalachia have different personal role models and characteristics for success than those students who have migrated from it.
3. A major problem in raising the occupational aspirations of Appalachian students appears to be a lack of information and opportunity rather than a lack of ability. (However, Riccio (1965) had found in an earlier study that migrant adolescents from the Appalachian south do not differ significantly in occupational aspiration, role models, or cultural conformity from lower middle-class youngsters, residing outside of Appalachia.)

LoCasco (1967) studied continuity-discontinuity in vocational development among many different populations and reported that the vocational development of those labeled disadvantaged is more likely to be delayed or impaired than that of advantaged persons. Studies by Schmeiding and Jensen (1968) of American Indian students and by Asbury (1968) of rural disadvantaged boys support LoCascio's conclusions. Wylie (1963) has reported that blacks and lower-class children set estimates of their ability to do school work lower than do white and upper-class children.

Gordon (1974) has stated that "theoretical discussions concerning motivation and aspiration suggest that the goals of socially disadvantaged children tend to be more immediate and utilitarian and that there exists less postponement in obtaining gratification and fewer symbolic rewards among them than among the middle and upper classes" (p. 464). However, Gordon also imposes several caveats which embrace much of the research on minority and disadvantaged persons. He indicates:

> "....Even if the characteristics and environmental conditions of this population were essentially negative and unwholesome, the research effort to support these observations would still be basically inadequate. In the first place, researchers have generalized from the 'typical socially disadvantaged child' to the entire population. This is an unsound generalization because no allowance is made for the variety of such children with widely varying characteristics; differential psychology is equally important in the realm of the socially disadvantaged. Furthermore, the correlation between poor school adjustment and certain conditions or characteristics does not necessarily imply *causation*. The research dealing with the identification of characteristics has not yet pinpointed the cause, nor a plan for remedial action" (p. 465).

Gordon's observations about the character of the research efforts vis-à-vis minorities and disadvantaged might almost serve as an epilogue for this paper. As indicated at several other earlier points, the educational conditions addressed in this paper have, for the most part, at least partial validity. The problem is the degree of extrapolation from subjective or impressionistic data and the potential overgeneralization which seems inherent in the available material.

In sum, the data reported, while less than exhaustive in terms of the magnitude of the pertinent information available, generally supports the assertion in condition 5, that American education as currently structured, does not adequately meet the needs of minority, nor of economically disadvantaged persons in our society. But one must hasten to add that much of the matter is complex involving social attitudes, parental education, and self-concepts, as well as inappropriate materials for and assumptions about this population. It is certainly clear that not every minority or disadvantaged child is being inadequately served by American education This depends upon the type of high school in which the student is enrolled, geography, the characteristics of other students in the school, parental characteristics and a variety of other factors. But the conclusion that large proportions of such children, poor white and the racially different, are currently being ill-served is undeniable.

## Potential Contributions of Career Education

Essentially the same contributions of career education cited in section 1 to 4 pertain here. However, beyond these, career education represents the possibility of an information delivery system which not only presents children a set of goals to which they might aspire but specific detail about how to achieve them. Certainly, many of the disadvantaged are in such a condition because adult models and information systems about how they can shed the constraints of disadvantagement are frequently unavailable. If one neither knows what is available to choose or how to plan for it, the result is likely to be regression further into a societally dependent and personally less competent role. This attitude is magnified when the disadvantaged child is neither helped nor expected to be able to cope with the academic tasks which largely represent entree to social mobility. Career education can also stimulate the involvement of adult representatives of minority and disadvantaged populations in planning educational experiences which take into account the attitudes, needs, and goals of such constituencies. If career education is to respond to all persons, it must embrace neither assumptions nor generalities about the spectrum of talents, needs, and goals which comprise the pluralism of America. Instead, it must have factual and conceptual information attuned to the development of flexible and diverse educational opportunities for all. One way of achieving such a purpose is to involve those one wishes to serve in the planning and decision-making pertinent to them.

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# CONDITIONS CALLING FOR EDUCATIONAL REFORM
## An Analysis

by
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This paper attempts to document five of eleven conditions which Dr. Kenneth B. Hoyt lists as calling for educational reform in the U.S. Office of Education policy paper, "An Introduction to Career Education". Specifically, the following conditions numbered as they appear on the OE paper are addressed within this monograph:

4. American education has not kept pace with the rapidity of change in the postindustrial occupational society. As a result, when worker qualifications are compared with job requirements, we find over-educated and under-educated workers are present in large numbers. Both the boredom of the over-educated worker and the frustration of the under-educated worker have contributed to the growing presence of worker alienation in the total occupational society.
6. The growing need for and presence of women in the work force has not been reflected adequately in either the educational or the career options typically pictured for girls enrolled in our educational system.
7. The growing needs for continuing and recurrent education on the part of adults are not being met adequately by our current systems of public education.
9. The general public, including parents and the business-industry-labor community, has not been given an adequate role in formulation of educational policy.
11. Post high school education has given insufficient emphasis to educational programs at the sub-baccalaureate degree level.

Condition 8, "Insufficient attention has been given to learning opportunities which exist outside the structure of formal education and are increasingly needed by both youth and adults in our society," seems to this writer to be redundant of material which is covered in the documentation of Conditions 7 and 11 above. Therefore, the research involving Condition 8 is absorbed into the discussions relating to Conditions 7 and 11 herein.

### Condition #4

*American education has not kept pace with the rapidity of change in the postindustrial occupational society. As a result, when worker qualifications are compared with job requirements, we find over-educated and under-educated workers are present in large numbers. Both the boredom of the over-educated worker and the frustration of the under-educated worker have contributed to the growing presence of worker alienation in the total occupational society.*

## COMMENTARY

### The Over-Educated Worker

Before one begins to describe the over-educated worker, he must define his terms, for, in one sense, there is no such phenomenon as over-education. The eminent futurist, Peter Drucker, has observed (1):

> Tomorrow everybody—or practically everybody—will have had the education of the upper classes of yesterday, and will expect equivalent opportunities. Yet only a small minority can get ahead no matter what work they choose. This is why we face the problem of making every kind of job meaningful and capable of satisfying an educated man. This is why the new organization must create an effective relationship of function, rank, rewards and responsibilities, not only for its professionals but for all those employed in knowledge jobs.

Because of the rapidity of change and innovation in contemporary society, education should teach people how to learn to learn, to acquire the basic skills of analysis, expression, and understanding, and to be motivated to want self-development. In short, what we have typically regarded as an "educated person" is one whose learning transcends the specific and relatively narrow requirements of a specific job. In this sense, then, one cannot be over-educated, except in relation to a specific type of work performed, and that is the area to which this portion of this paper addresses itself.

If one considers degree requirements in relation to jobs, then there is little doubt that an increasing number of Americans are over-educated. It is estimated that during the 1970's almost 10 million college-educated persons will enter the labor force; of these, over one-quarter will be absorbed by the up-grading of positions that have not normally utilized college-educated persons in the past (2). Another source (3) predicts that by next year, there will be about 3.1 million more high school graduates, 850,000 persons with some college education, and 3.3 million more college graduates than would be required to maintain the same level of education in the various occupations that existed in 1960. The discrepancy between an estimated 20 percent of jobs which truly require more than a high school education (4) and the proportion of American workers which has more than a high school education is currently about 30 percent in excess and may go as high as 50 percent (5). It is clear, therefore, that a great many jobs will be educationally up-graded; or, conversely, that a great many persons will be occupationally down-graded.

This situation is not new, but it will continue to be exacerbated. Currently, for instance, about 30 percent of 4-year male college graduates are in blue-collar, sales, and clerical jobs which presumably do not make full use of their education (6). The under-employment of female college graduates is considerably more acute and is documented in a separate section of this paper. If the situation worsens, then America will have to deal not only with the frustrations of the under-employed but also with the prospect of massive graduate unemployment.

Everyone knows the horror stories of the Ph.D. who drives a taxi or the graduate engineer who runs a popcorn stand. Such stories tend to get circulated frequently in times of economic recession. The fact is, however, that such startling under-employment is anomolous and extremely rare. The following data document some substantial under-employment but also testify to the appropriate use of college-trained personpower (7).

Percentage of Workers Who Were College Graduates
in Each Major Occupation Group, by Sex, 1971

| | Men | Women |
|---|---|---|
| All Workers | 15.4 | 11.9 |
| Professional, Technical, and Kindred Workers | 62.0 | 57.6 |
| Managers, Officials, and Proprietors, except Farm | 25.2 | 14.4 |
| Clerical and Kindred Workers | 8.8 | 3.8 |
| Sales Workers | 19.2 | 4.7 |
| All Other Occupations | -- | 1.4 |

It is evident that there are a significant number of people in America educated to an extent beyond the purely educational demands of the job market. On the other hand, it is also apparent that much of formal school contributes to a more meaningful life independent of the requirements of a specific job.

## The Under-Educated Worker

It is more difficult to get a "handle" on the under-educated worker than it is to realize his over-educated counterpart. To be sure, there are a number of inferences which one can make from extant data. For example, the U.S. Office of Education estimates that perhaps 25 million Americans need some form of vocational and technical training and that only about 40 percent of those who need it are getting it; some 5 million in high schools, 2 million in full-time vocational-technical programs (all but approximately 500,000 in about 7,000 private schools), and the rest as adults in short-term and part-time programs for improving or up-dating their skills (8).

The less one's education, the more likely that he will be unemployed. Labor force entrants—particularly those entering the labor force for the first time—account for three-quarters of the unemployed teenagers (9). At the other end of

the age employment spectrum, men aged 55 to 64 without a high school diploma leave the labor force in significantly greater proportion than those of comparable ages who are high school and college graduates (10). The under-educated are also the unskilled and the poor. Of this group, many have latent ability and, if motivated and trained, could contribute meaningfully to the labor force. It is of interest to note that unemployment is typically low in the professional and skilled occupations and is generally high for the less skilled segments of the labor force (11).

There is a good deal being done to up-grade the training and job performance of the unskilled and the poor. The recently enacted Comprehensive Employment and Training Act of 1973 (CETA) is the latest of a series of manpower training programs made possible by Federal funding. It is estimated that this year approximately 2,736,000 Americans will benefit from Federally assisted work and training programs (12).

These types of programs and the increase in the general educational attainments of the population are expected to decrease severely the number of Americans in the labor force with 8 years or less of schooling. Their numbers are expected to decline from the present 12.5 million (19 percent) to 9.1 million (11.8 percent) by 1980.

Generally, then, the educational attainment of American workers is rising, but a substantial percentage of the population remains under-trained for specific skilled jobs and under-educated for general adult competency. However, Federally legislated programs for training and job placement are at least palliating the situation.

It has been observed, however, that "people do not need just more education" (13). There is ample evidence to suggest that individuals can be retrained and gain entrance at an occupational level previously unavailable to them (14). In some ways, therefore, under-education may not be so much a problem as is inappropriate education.

## Worker Job Alienation

It would be logical to assume that over- and under-education would result in a great deal of job dissatisfaction and worker job alienation. The mass media constantly bombard the American public with dramatic accounts of worker dissatisfaction, such as that experienced at the Vega production facility in Lordstown, Ohio. Popular books, such as Charles Reich's *The Greening of America* (15) hypothesize an emerging new work ethic as a result of worker dissatisfaction. Best sellers, such as Studs Terkel's *Working* (16), lend apparent credence to the notion that the American worker is disenchanted, disillusioned, and alienated. On the face of it, there would seem to be reason to believe that all is not well with American worker job satisfaction.

However, all of the objective data which we have gainsay this argument. There is no conclusive evidence of any widespread, dramatic decline in job satisfaction over the last decade (17). On the other hand, the younger, the less educated, and the less skilled sectors of the labor force do register less satisfaction than do professional-technical workers, managers, officials, and proprietors.

There is some evidence that suggests a relationship (although not dramatic) between over- and under-education and job satisfaction. Among workers without a college degree, there is little relationship between educational level and job satisfaction. Those with college degrees, however, have high levels of job satisfaction. Relatively low levels of satisfaction are expressed by workers with some college education but no degree (18).

> The most conspicuously underemployed group . . . is . . . workers with some college education but without a college degree. Their situation is a difficult one. On the one hand, their college experience may have altered their occupational desires in the same way that it often does for college graduates. They lack, however, the necessary credential—the college degree—for securing employment suitable for a college-trained person. Among workers under 30 this situation is characterized by strikingly low job satisfaction—roughly equal to that expressed by laborers and operatives.

What is clear is that the majority of American workers require something more than adequate remuneration from their jobs in order to feel satisfied (e.g., working conditions, challenge, etc.). They must be getting it. In 1973, a poll conducted by the Survey Research Center of the University of Michigan found that 90 percent of American workers were satisfied with their jobs, and another poll conducted by the Gallup organization put the satisfaction figure at 88 percent (19). On the other hand, a substantial proportion of American workers feels that it is over-educated. One survey (20) indicated that 36 percent of American workers had more education than they thought was needed to do their jobs.

Hence, while an overwhelming percentage of working Americans voice a satisfaction with their jobs, about 10 percent of American workers are basically dissatisfied. This dissatisfaction may stem, at least in part, from the fact that they are either over- or under-educated.

## The Contribution of Career Education

The ultimate aims of career education include giving Americans sufficient self-knowledge, knowledge of the world of work and the economic system of this country, knowledge of the relationship between education and/or training and work, healthy attitudes and values toward work, and decision-making skills that they will make vocational choices which will give them satisfaction and which will benefit society. If these goals are accomplished, there will be fewer individuals who are either over- or under-educated. Presumably, individuals will make the necessary choices for education and/or training which are commensurate with their abilities and values, resulting in greater job satisfaction.

## Summary

Over-education is a potentially troublesome development in America when viewed in a relatively narrow occupational sense. Under-education is a current and continuing condition among American workers. To some extent, both conditions may contribute to the job dissatisfaction expressed by approximately 10 percent of American workers.

## Notes


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10. *Ibid.*, p. 32.

11. Seymour L. Wolfbein. *Occupational Information: A Career Guidance View.* New York: Random House, 1968, p. 131.

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**Condition #6**

*The growing need for and the presence of women in the work force has not been reflected adequately in either the educational or the career options typically pictured for girls enrolled in our educational system.*

## COMMENTARY

### Women in the Work Force

While women have always constituted a significant and vital proportion of the work force in America, their presence in the labor force has increased markedly and dramatically in the past 25 years. In 1948, females in the labor force numbered 17,335,000 and represented 31.3 percent of all women between the ages of 16 and 65 who were potentially eligible for the world of work. By 1973, 34,510,000 were a part of the work force; this figure represented 44.1 percent of the female civilian noninstitutional population (1). Hence, the female work force has just about doubled in the last 25 years, and about one-half of all eligible women are employed. These women comprise approximately 40 percent of the total American work force.

Of this number of women, over one-half of all females in the age ranges of 18-24 and 35-54 were employed. Employed women 25-34 (the typical child-rearing ages) comprised 48.5 percent of the female population, while those 55-64 were employed at nearly a 41 percent rate. In the 20-24 age range, almost 62 percent were in the labor force. Of these women, approximately 3 of every 5 were employed full-time, full-year. Further, while in 1948 only 22 percent of married women with spouse present were employed, by 1973 that figure had jumped to 42.2 percent.

Clearly, women are in the labor force to stay. The worklife expectancy of women is now over 20 years (2). The increase in the percentage of the labor force that is female suggests a heightened interest in work-for-pay outside of the home (3). Whatever the motivation for women to work–financial, social, psychological, etc.–their attachment to work is now pervasive throughout the entire adult group, and the participation of mothers in the labor force has increased significantly (4). The stereotype is that the work of women is temporary and supplemental; the facts suggest however, that the participation of women in the labor force is relatively permanent and absolutely necessary.

### The Educational Options of Women

A great deal has been written regarding the effects of the formal educational system on the socialization and subsequent career aspirations of females. While the proportion of females electing to pursue higher education has increased substantially and while the percentage of females achieving the baccalaureate degree has also increased, there is evidence that America has significantly under-utilized its womanpower in the labor force. This under-utilization is typically attributed to the press of the American educational system and its effects on female career aspirations.

For example, the proportion of women enrolled in degree-credit courses has increased from 38 percent in 1962 to 43.1 percent in 1972 and is expected to attain 45.7 percent by 1982. Similarly, the proportion of bachelor's degrees awarded to women has increased from 41 percent in 1962-63 to 44.1 percent in 1972-73 and is forecast to reach 46.5 percent by 1982-83 (5). Yet, when the occupational aspirations of female elementary school students are compared to those of their male counterparts, those of girls are markedly lower, evidence little "soaring" or fantasy, and manifest a narrow rather than a broad range of careers by contrast (6).

This situation is likely the result of the fact that American society (and the school system as an institution of that society) has devalued achievement related behavior in women to the point that a great many females are motivated to avoid success (7). Certainly, there must be a good deal of sex-role conditioning which occurs throughout education, for–independent of discrimination–girls simply are not motivated to choose a wider gamut of careers. It is common knowledge that boys are generally encouraged to be aggressive, competitive, and independent, whereas girls are rewarded for being relatively passive and dependent; that textbooks and other children's literature are sexist in nature; and that certain subjects are considered "appropriate" for boys and not for girls and vice versa (8).

The participation of women in the work force is directly related to the number of years of schooling which they complete. When the percent of women 18 years and older in the civilian non-institutional population who are members of the civilian work force (employed and unemployed) is scrutinized by level of educational attainment, we find that the force includes only 29.8 percent of those completing elementary school, but 49.7 percent of those finishing high school, 56.9 percent of women completing college, and 69.1 percent of those with graduate training (9). And the gulf is getting wider: There continues to be a growth in the labor force participation among women with the most education and a reduction in the likelihood of employment among women with relatively little schooling (10).

There seems to be little conscious effort by educational systems to reduce sexual stereotyping of occupations. In one typical study (11) elementary school children presented both "good news and bad news." The positive finding was that young students did not feel that the woman's place was in the home; women at work was a concept acceptable to them. However, the negative finding was that the work of women was clearly "woman's work"; that is, women were considered to be able to work only in certain occupations (e.g., waitress, nurse, librarian, etc.). While women were thus limited, men were not; men could do women's work, but the obverse did not pertain.

There is virtually no evidence that on major aptitude variables girls are different from boys. To be sure, on such aptitude measures as tests of mechanical ability and the numerical sections of such instruments as the College Entrance Examination Board's Scholastic Aptitude Test, girls as a group perform less well than boys; however, these results can be accounted for by experience and interest factors rather than by innate differences in aptitude. In the same manner, females as a group score higher than males in clerical aptitude and various dexterity tests. Both of these situations are, at least in part, directly

attributable to the educational system and its differential expectations and rewards for boys and girls. In either case, there is so much overlap between the performances of the sexes on diverse aptitude assessment devices that we can safely say that women possess a full range of employment aptitudes (12).

What emerges from this brief discussion, then, is a picture of an educational system which, inadvertently or deliberately, perpetuates sex-role stereotypes with a resultant loss of substantial talent in the American labor force.

## The Career Options of Women

Given the educational experiences of women and their experiences with other institutions in our society, such as the church and the family, which impinge upon the formulation of occupational aspirations, it is not surprising that women are disproportionately represented in the various categories of the labor force.

Women in America are concentrated in relatively few occupations and industries: Service fields, clerical and sales, operatives in manufacturing, and within the professions of nursing, teaching, and social work. In fact, one-third of all women in the labor force are concentrated in only seven jobs: Secretary, retail sales clerk, household worker, elementary school teacher, bookkeeper, waitress, and nurse. Another way of looking at the constriction of women's jobs is to note that 78 percent of all working women (compared to 40 percent of working men) are employed as clerical workers, service workers, factory workers, and sales clerks. Fewer than one percent of all women workers are engaged in "professional" occupations (if one excludes teaching, nursing, and social work from the "professional" category) (13).

The converse of these data present an appalling picture. Looking at some selected professional occupations, it is clear that women are extraordinarily under-represented. Women comprise only 4 percent of architects, 4 percent of draftsmen, 3 percent of lawyers, 11 percent of science and engineering technicians, 2 percent of veterinarians, 7 percent of physicians, 2 percent of dentists, less than 1 percent of engineers, 10 percent of chemists, and 4 percent of physicists. In each of these occupational categories, demand is expected to exceed supply significantly for years to come. Yet women remain rarities in these occupations despite the fact that, as we have previously observed, a significant portion of the female population possess the necessary requisites for success in training for these jobs (14).

The same types of statistics emerge when one looks at representation of women in the skilled trades. Only about 3 percent of craftsmen are women (even the job terminologies are sexually limiting). Skilled trade and craft occupations, such as appliance servicemen, business machine servicemen, and automotive mechanics, are expected to continue to be high demand areas; yet each is almost devoid of women.

It should be apparent that, as a result of not fully developing the potential of womanpower, there is a great waste of talent in America. Both the economic interests of America and our commitment to the development of each individual's potential dictate that this situation be redressed.

## The Contribution of Career Education

The under-development of women's talent and the subsequent under-utilization of women in the American work force is in part the result of discrimination and in part the result of motivation. With regard to the former situation, aggressive and active steps have been and continue to be taken to remedy the situation. Title VII of the Civil Rights Act of 1964 prohibits sex discrimination in employment and is enforced by the Equal Employment Opportunity Commission. The Federal Equal Pay Law, a variety of Executive Orders (11246, 11478, etc.), and other legislation have done much to palliate overt practices of sexual discrimination. If we are to utilize fully our womanpower, there must be a continued broadening of the kinds of employment open to women in industry, government, education, the laboratories, etc. Legislation can and does remove a great many of the visible barriers to the realization of women's potential.

Beyond legislation, however, the educational and occupational horizons of women must be broadened. It will be of relatively small assistance to broaden employment opportunities for women if there is not a concomitant effort to motivate females in order to reduce and ultimately destroy sex-role conditioning related to the world of work. For older women, programs designed for re-entry and re-training may be necessary. For the younger female, career education can work to attract, train, and develop America's best talents.

What are the areas to which career education can contribute in this endeavor? One suggestion is that the schools can work with young females to: (1) Minimize sexual stereotypes and sex-linked misconceptions; (2) provide girls with a broad exposure to a wide range of experiences, ideas, and role models; (3) educate pupils in skills for choice, problem solving, and evaluation; and (4) enhance the self-knowledge of the school population (15). All of these goals, of course, are essential components of career education.

Another writer (16) has suggested that the schools can work toward needed changes in the attitudes of both men and women. The schools must assure that males recognize females as individuals, accept the idea of women in "men's fields", and prepare to cope with the notion of the "working wife", for the majority of wives will indeed be paid workers too. Schools must also work with girls to help them to accept these new responsibilities, have greater expectations of themselves, and engage in more careful and realistic planning. Again, career education becomes a viable strategy by means of which these changes can be effected.

A third example of how career education can help in the fuller development of women workers is provided by Hansen (17). She presents a curricular emphasis in the schools which highlights such variables as: Awareness of self; acquiring a sense of control over one's life; acquiring knowledge about workers, working settings, and occupations; acquiring respect for other people and the work they do; developing, clarifying, and reality testing a positive self-concept; acquiring the discipline of work; valuing human dignity; assuming responsibility for vocational planning; formulating tentative career goals; acquiring knowledge of educational and vocational resources; acquiring a sense of independence and an awareness of a preferred life style; clarifying the decision-making process as related to self; and commitment with tentativeness within a changing world. In

addition, she proposes some school strategies for assisting both boys and girls to come to grips with and maximize the inevitability of the working woman, among which are the following:

1. Help girls think of themselves as persons, to affirm their sense of personal worth, to face and work through their identity and role conflicts.
2. Help females to consider a wide range of occupational options in addition to the traditional stereotypic ones.
3. Help girls and boys think through and plan for multiple roles as worker and parents.
4. Make sure boys and girls have accurate information about women in the labor force, present and projected, and about alternatives available.
5. Help each girl to learn the process of decision-making and to know that she *can* choose in accord with her values, ability, motivation, and preferences from a variety of life patterns.
6. Make both males and females aware of the variety of life styles and family patterns from which they can choose and of potential role conflicts involved in choosing one pattern over another.

The preceding are but three examples of how some of the goals of career education can be utilized in the service of increasing the potency of women in the work force.

## Summary

Women are in the work force in substantial and ever-increasing proportion. Their understanding of the possibilities extant for them in the work world is limited; and is reflected in their concentration in certain occupations and their virtual absence from others; consequently, their motivation is less than what it might be. Career education seeks to provide females with the necessary and sufficient requisites that will enable them to participate in the work force in a manner that will bring benefit both to themselves and to America.

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**Condition #7**

*The growing needs for continuing and recurrent education on the part of adults are not being adequately met by our current systems of public education.*

## COMMENTARY

### A Lexicon of Continuing Education

There exists an inordinate amount of semantic confusion regarding what descriptive term to apply to adults who pursue education outside of the mainstream of America's formal or core educational system, pre-school through university. The term *adult education* was formerly used as a catch-all to define such activities; however, of late it has come to be utilized primarily to denote educational experiences which are mainly remedial or avocational in character (1). More specifically, the term *basic adult education* is applied to the provision of learning experiences designed to remove adult functional illiteracy and for similar rudimentary but essential purposes. The current term in vogue in America is *continuing education;* the corollary designation in Great Britain is *recurrent education.* Another term coming rapidly into favor is *lifelong education,* which many feel most accurately expresses the over-all goal of the discipline.

Continuing education has, of course, existed in America almost since the country's inception, what with the pre-Civil War mechanics institutes, the Chautauqua Movement, and other education for adults beyond the confines of what is considered the traditional core educational system. Recently, in recognition of the growth of continuing education, new vocabulary has evolved; hence, if "pedagogy" is an appropriate word to describe the technology of childhood education, then "andragogy" becomes appropriate to describe the technology of adult education (2).

Continuing education should not be confused with extended schooling. "Extending schooling believes that the longer we keep the young away from work and life, the more they will have learned. Continuing education assumes, on the contrary, that the more experience in life and work people have, the more eager they will be to learn and the more capable they will be of learning" (3). Thus, the point is frequently made that education is not synonymous with schooling (4).

For purposes of this paper, then, the terms *adult education, continuing education, recurrent education,* and *lifelong education* are used interchangeably to denote all organized learning activities outside of the core educational system. There are two broad goals adopted by continuing education: (1) to prevent human obsolescence; and (2) to preserve and further develop the American society (5). These goals are delineated somewhat in the following statement (6):

> The role of adult education in American society is twofold: (1) to keep the social, political, and economic machinery of its dynamic civilization in operation; (2) to inspire, induce, guide, and teach adults in all phases of

personal development and enrichment so that each individual can work out his own way of living, and of finding meaning in life, his own approach to realizing himself as an individual.

Continuing education programs, as opposed to our core educational system, are typically characterized by a low degree of structure, a task- or skill-centered focus and a short-term, present-time orientation. They are frequently uncoördinated, fragmented, diffuse, and have low visibility. Although there is great variation among them, the stress is more often than not placed on resocialization, acculturation, and the learning of practical skills and knowledge related to work or daily life (7).

## The Settings for Continuing Education

Continuing education is pursued by adults in a variety of settings. The providers of continuing education may be industry, commerce, the military, religious institutions, labor unions, the mass media, correspondence schools, manpower programs, correctional institutions, hospitals, public and private schools, colleges and universities (part-time), extension services, voluntary and community organizations, tutors or private instructors, service organizations, and a diverse array of other organizations and institutions.

The opportunities for continuing education in business, industry, and the military alone are so vast that these three segments of society have been described in terms of being as great an educational force as public schools and higher educational systems (8). For example, 10 years ago, there were over 300 formally constituted military schools in the United States, offering over 4,000 courses, which provided training for 2,500 separate jobs involving 1,400 civilian job classifications. At any one time, some 10 to 15 percent of the armed forces personnel of the United States are attending formal classes at some school. These figures at the least hold today and have probably been exceeded (9). These staggering data are matched in the stores and factories across the nation. Industry, with both in-service (employer provided) and out-service (employer contracted) training, seeks on a massive scale to resolve the problem of "educational half-life" (10), the period of time in which about half of what an adult needs to know to perform his job effectively is different from what he knew at the time he finished his formal education or training in school or college. In 1974, company schools in business and industry provided some form of education for approximately 17.5 million employees (11).

The single most effective educational system in the history of the world is a part of continuing education. The Extension Service of the U.S. Department of Agriculture is a classic and highly visible example of the potential effectiveness of continuing education.

In general, continuing education is taking place in four types of agencies (12). There are, first of all, those agencies where continuing education is viewed as a *primary* function (e.g., proprietary schools and independent residential and non-residential adult centers). Secondly, there are agencies who consider continuing education to be a *secondary* function (e.g., adult evening or day programs of public schools, community service or adult education divisions of community colleges, and general extension divisions, evening colleges, etc. of

colleges and universities). Thirdly, there are agencies which provide continuing education as an *allied* function (e.g., libraries, museums, health and welfare agencies, etc.). Lastly, there are agencies which consider continuing education as a *subordinate* function (e.g., business and industry, labor unions, government, churches, voluntary associations, etc.).

It is clear, then, that a large number of institutions, organizations, and agencies in American society are providing opportunities for the continuing education of adults.

## The Population of Continuing Education

Like a great many other variables, the continuing education of adults bears a strong relationship to occupational level. In descending order, the proportion of the various occupational groupings who engage in continuing education activities is as follows: professional and technical; clerical and sales (managers, officials, proprietors); craftsmen and foremen; service workers; operatives; and laborers (13).

In 1965, it was estimated that almost 30 million different adults studied subjects of various types through continuing education instruction or independent self study (14). Of these, approximately 9 million pursued job-related subjects and skills; 5.5 million hobbies and recreation; 3.8 million religion, morals, and ethics; 3.5 million general educational subjects; 3.5 million home and family life subjects; 1.7 million personal development subjects; 1.1 million current events, public affairs, and citizenship; .3 million agriculture; and 1 million miscellaneous subject matter.

In the 10 years since these figures emerged, the absolute numbers of those engaged in continuing education has increased, but the proportions pursuing the various types of subjects have remained relatively constant. In 1972, continuing education participation in public and private schools, part-time in colleges and universities, in various job training programs, in correspondence courses, and in selected community organizations alone totaled 13,150,000, evenly distributed above and below the age of 35 (15).

Some of the data frequently cited in the field of continuing education seem hyperbolic. For example, one source (16) predicts that by 1976, 149 million people will be involved in some kind of educational program—82 million outside the traditional educational system and 67 million within it. In a country with a total population of 212 million, these statistics strain credibility. However, even allowing for inflated figures, it is apparent that a highly significant proportion of the adult population is engaged in continuing education. In one survey, for example, only a small fraction of possible organized continuing education institutions responded, and still 2,100 different institutions were represented (17).

Probably the most accurate forecasting is the following. Currently, about 62 million students are enrolled in formal school (pre-school, elementary, secondary, and higher education) (18). Best guess estimates suggest that another 45 million are engaged in vocational training (vocational, technical, and professional training outside of the formal educational structure and including professional and technical training, company schools, on-the-job training, correspondence

schools, the armed forces, etc.), and an additional 28.5 million are involved in more general adult education (19). Hence, more people are receiving education outside of the formal educational system than within it.

Fairly recent developments in society account for a growing number of continuing education opportunities. The Tests of General Educational Development (GED) of the American Council on Education enable school leavers to acquire a high school equivalency diploma; approximately 300,000 students per year do so. In higher education, several states have established programs similar to the Open University in Great Britain (e.g., University Without Walls in Massachusetts and Empire State College in New York) and the College-Level Examination Program (CLEP) enable the student to receive college credit without actually attending traditional classes. The Manpower Development and Training Act also has opened continuing education opportunities to another segment of Americans. These are but a few illustrations of evolving developments in continuing education which affect the lives of a growing number of people in America.

Patently, a goodly proportion of the 84.5 million workers in America, their non-working spouses, and others are involved in some form of continuing education.

## Evaluation of Continuing Education

Despite the fact that opportunities for continuing education are extant on a large scale and that adults are availing themselves of these opportunities in large numbers, America must solve some difficulties in relation to the lifelong learning of its population. One commentator has observed (20):

> Adult education, despite its importance, has never been the major cultural factor in the United States that it is in England, the Scandinavian countries, and Russia. The problem in our country has been the lack of identification of "adult education" as a specific field, a dearth of major educational opportunities for adults, and an almost complete absence of institutions with a major commitment to educating adults.

One major problem is that education seems to feed on schooling; that is, the more formal schooling one has, the more likely he is to engage in some form of continuing education. The challenge would, therefore, seem to be to involve the relatively less schooled elements of American adults in continuing education.

Another problem exists in dealing with the continuing education of an increasingly significant proportion of adults—the retired. America's older citizens need to become aware of the changes that are taking place in their lives, to acquire knowledge and skills that will maintain health, retain or increase mental capacity, and to enable themselves to use their own resources more effectively, and to realize that learning in and of itself can be interesting and stimulating (21). The aged are a special clientele with unique needs and interests for continuing education (22). We have barely begun to meet their needs or, indeed, to understand what those needs are.

Still another area of concern relates to the certifiability of various forms of independent study for adults. Some universally acceptable validation procedure for the completion of various types of studies will have to be agreed upon. For

example, correspondence schools are accredited by the National Home Study Council and/or the National University Extension Association (23). Similar accreditation and certification will have to be guaranteed for all types of continuing education and must be accompanied by heightened efforts at making potential consumers aware of the dangers of non-accredited study.

Then there is the whole range of problems related to the agencies of continuing education clarifying their respective tasks and ensuring the development of coherent curriculums of sequential learning. This task may involve the expansion of various types of cooperative administrative arrangements (e.g., local community colleges assuming responsibility for the continued training of personnel for hospitals). One suggestion (24) is that consortia of institutions be established on a local, regional, and national basis to pool resources for continuing education with the aim of making sure that virtually all citizens have access to continuous learning of high quality.

Other suggestions advocate the expansion of existing opportunities for cultural and lifelong learning activities. Recommendations range from the expansion of the adult college constituency to the design and operation of learning "pavilions" to encourage and facilitate independent adult learning (25).

Still another area of concern is in regard to how continuing education fits into the total comprehensive educational framework in America. It has been suggested that "American educators. . . start moving toward a conciliation and articulation of core education and continuing education. . . . Improved articulation is needed between what the schools and colleges do in the formal educational system and what other learning situations and institutions can do to provide opportunities for continuous learning" (26).

The need for continuing education is certainly great. As one commentator has noted:

> If we want our workers to be flexible and skilled enough, society has to be committed to a continuous training program for its members. And this training need not only be directed toward job-related skills. This is true because nearly any kind of continuous education experience after the completion of the formal education program would be helpful in that the very act of participation, if meaningful, would motivate a positive attitude toward more such experiences (27).

In more specific terms, it has been suggested that continuing education should be epitomized by a new set of 3 R's—Renewal (helping the adult to grow and keep himself replenished in his job), retraining (drastic changes leading to wholly new skills), and readjustment (training for a stance of preparedness for change (28).

## The Contribution of Career Education

The average American now has a life span of 70 years. During his longevity, he will need various types of continuing education. In the formal school system, career education can help individuals to understand the need for lifelong education and to instill within them the motivation to take advantage of the large number of opportunities that exist and those that will be created. In the adult world, the home-community model can encourage people to use the

continuing education career preparation services available in their own communities. This model can also serve to assess community effectiveness in providing career training and recommend new services as needed. Finally, various educational renewal programs can be stimulated by career education.

## Summary

While a great deal of diversified continuing education is provided in America by a wide variety of agencies to a substantial proportion of the adult population, our loosely structured, non-core educational system can be improved. Career education can contribute significantly to this improvement.

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### Condition #9

*The general public, including parents and the business-industry-labor community, has not been given an adequate role in formulation of educational policy.*

## COMMENTARY

### What Condition #9 Does Not Mean

It is possible to infer from Condition #9 that what is being advocated is the concept of "local community control", a newer system of educational policy formulation which is designed to increase the power base of segments of the population in large-city schools by a process of decentralization (1). In most school systems, members of boards of education are supposedly elected or appointed to represent the community in the making of local educational policies. In fact, however, because of a variety of factors, they more often than not simply legitimize the schools' policies rather than represent the community (2). In large city schools, it is argued, this situation leads to feelings of alienation by minority segments of the community; hence, "if the establishment was unresponsive to the needs of those at the bottom of the social scale, then why not redistribute power by giving some decision-making power to the poor and the objects of discrimination" (3). Thus schools would assume the function of becoming instruments of social change rather than their more traditional function of serving as a social control (4).

Such a proposal, of course, is threatening to the professionals who operate the schools, for they fear that various political tests will be employed to hire and to retain teachers and to evaluate teaching effectiveness. Consequently, the concept of local community power or control is presently a volatile issue. Condition #9 does not concern itself with this issue, whatever its *pro's* and *contra's*. It simply suggests that parents, business, industry, labor, and other segments of the community ought to be involved in the direction, scope, and emphasis of school policy to a degree previously unrecognized.

### The Home, Business, and Labor in the Schools

In one sense, industry (henceforth, industry is used to mean business and industry) has for some time had a profound influence in the schools. Some educational historians and sociologists have even argued that American schools, once under religious domination, have for some time been and are now business dominated, in the sense that their primary aim is to produce individuals who meet the needs of business and industry (5).

Certainly, industry has been utilized by schools; however, the utilization has been far from universal, confined to a narrow segment of schooling, and has, more often than not, been haphazard and hit-or-miss in its character. There have been for decades a variety of programs designed with the intent of permitting learners to acquire first-hand experiences in industry as a part of their formal

secondary education. These cooperative activities between business and the schools (largely industrial education) have taken place primarily in construction, manufacturing, merchandising, and agriculture (6). Beginning with the Smith-Hughes Act in 1917 and continuing through the Vocational Education Act of 1963 and its 1968 Amendments, a variety of Federal legislation has provided financial support for training for industrial occupations (7). This legislation and other factors have led to an array of cooperative efforts between industry and the schools.

One sort of cooperation is evidenced by education-industry advisory committees. It has been estimated that over 20,000 advisory committees are operating in schools offering vocational and technical education and that over 100,000 industry people are active to varying degrees on these committees (8). The 1968 Amendments to the Vocational Education Act of 1963, do, in fact, require industry involvement in public school vocational education programs. To be sure, many such committees are "paper" groups which have little real input into programs, but many other perform services of real value.

These groups typically include representatives from industry, business, labor, management, politics, and the general community, with the aims of formulating policy in vocational and technical education and of performing other services. One source suggests that cooperative industry-education activities can be grouped into six broad categories: (1) Planning of occupational programs (manpower needs and skill development); (2) acquisition of tools, equipment, and materials; (3) selection and preparation (orientation) of instructional staff, students, and instructional materials; (4) promotion (public relations) and dissemination of program activities; (5) solicitation of professional and financial resources; and (6) evaluation of instructional programs (9).

Another type of joint effort involving industry and the schools is cooperative programs, such as work-study, cooperative work-experience (CWE), distributive education (DE), and diversified occupation programs (DO). As defined by the Vocational Education Acts of 1963 and 1968 Cooperative Work-Study (CWS) programs are designed for students with great financial need in order to stay in school, and Cooperative Work Experience (CWE) programs provide supervised on-the-job training for 16- 18-year-olds, utilizing both a teacher-coordinator and an industrial representative (10).

Non-legislated and less formal partnerships between industry and the schools also exist. Educational partnership projects, involving various types of exchanges of human and materials resources between companies and the schools, are increasing in number. One study has identified about 76 such projects, which involved 33 companies in 23 cities 11). In addition, industry is also involved in a relatively smallish way in creating new educational curriculums and materials for the preparation of students in various technical and vocational subjects and in recruiting and selecting prospective vocational teachers.

Currently, every State, aided by the U.S. Office of Education, has an industry-education-labor coordinator. Schools can call on these individuals for technical assistance (12). Several model programs are being evolved which entail the active participation of industry. Among these are (13):

1. The Employer-Based Career Education Program developed by the Appalachian Educational Laboratory, Inc., which is planned to design, effect,

and document an educational program outside the public school system, operating within employer and community settings.

2. Community Experiences for Career Education Program, under the direction of the Northwest Regional Educational Laboratory, is designed to test the effectiveness of using business and the community as the setting for obtaining a high school education.
3. Career Education Program by the Southwestern Cooperative Educational Laboratory of Albuquerque for people between 16 and 45 who are unemployed, underemployed, and misemployed also emphasizes the bilingual and multicultural aspects.
4. The Academy for Career Education in Philadelphia, developed by Research for Better Schools, Inc. has some of the instruction conducted at employer locations and some at a central facility in downtown Philadelphia.
5. Employer-Based Career Education developed by the Far West Laboratory, is a voluntary educational alternative for 13 to 18 year olds of all backgrounds and abilities with a goal of comprehensive learning, *not* vocational training.

Some have suggested that industry can contribute to formal education by assisting in school system management, cooperative work experience programs, academic performance contracting, on-the-job performance contracting, and even commercial school operation (15).

In terms of organized labor, the outlook is not quite so optimistic. It has been observed that "unions have always been lukewarm toward vocational and technical education in the schools" (14). While this situation is improving, America's formal educational system has done relatively little to involve the 20 million union members who operate in blue collar, white collar, technical, and professional fields and represent 30 percent of the total non-agricultural work force (16). In the early 1800's, organized labor started the first campaign to provide free public education for all children (17). Today, organized labor occasionally lobbies for education bills, does provide its own workshops and courses for its membership, and controls apprenticeship programs; but its direct involvement in the formal educational system is relatively lacking. It has been suggested that enlisting the help of labor leaders on a voluntary basis in educational programs would enhance community-school relationships. Along with industry, they could aid in (1) improvement of instructional programs in classrooms, shops, and science labs; (2) participation in work-study programs and curriculum revision; (3) preparation of job placement and career guidance information; (4) assistance in professional growth programs for teachers and recognition incentive programs for students; (5) provision of administrative supportive services; (6) participation in the schools' public relations activities; and (7) opening of industrial facilities to schools and donation of material and financial resources (18).

It has always been axiomatic in American education that parents and the schools should work together to achieve educational goals. Certainly, various parent-teacher organizations have contributed toward this end. However, a great many parents find the schools to be inaccessible. In school programs where

conscious efforts have been made to draw in parents, they have proved to be worthy contributors to the educational process by assisting teachers to establish goals, by contributing directly to the instructional program, and by evaluating educational outcomes (19).

In the area of career education, especially, parents can be a valuable resource, if they are assisted by the school to ask certain types of questions and to find answers to them. These questions include: Why career guidance? When does career development begin? Is home environment related to career development? When should my child begin to explore occupations? What are schools and employment agencies doing in this field? How much education will my child need to succeed in a vocation? Should a parent ever choose an occupation for his child? Should a parent encourage his child to work part-time while in high school? Do young people give sufficient thought to the choice of an occupation? (20). The answers to these and many other questions are the joint responsibility of parents and the schools.

It seems accurate to observe, then, that industry, labor, and parents are currently given input opportunities into educational policy formulation; however, educational programs would probably benefit greatly by increased involvement.

## The Contribution of Career Education

One can only imagine the effect of *systematic* interaction among the schools and industry, labor, and parents in combining their various resources and expertise to meet the individual needs of students. It has been observed that one purpose of career education is to "unite the schools, communities, and employers in a cooperative educational venture" (21). All four of the Career Education Model Programs originally sponsored in 1972 by the U.S. Office of Education were directed toward this end. Both the schools and industry, labor, and parents must take active initiatives toward greater cooperative effort.

## Summary

The involvement of industry, labor, and parents in the formulation of educational policy has been more parochial than catholic, and more haphazard than systematic in its application, resulting in a loss of potentially valuable resources to our formal educational system. Career education seeks to rectify this wrong.

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### Condition #11

*Post high school education has given insufficient emphasis to educational programs at the sub-baccalaureate degree level.*

## COMMENTARY

### The Varieties of Post High School, Sub-Baccalaureate Opportunities

There is a diverse and plentiful range of post high school educational opportunities available in the United States at the sub-baccalaureate degree level. However, in their topsy-like growth, they have failed to reach the fulfillment of which they are potentially capable. Thus, they may not be so effective a force as possible in providing education for the 80 percent of our population that does not have a college degree (1). An overview of extant opportunities is provided in this section.

#### Community Colleges

Occupational or career education in the community colleges of America is being conducted on a scope unparalleled in our nation's history. There are currently over 1,100 community colleges in America, enrolling over 2.5 million students, approximately 57 percent of whom attend full-time and 43 percent part-time (2). These students are about equally divided in terms of those who pursue an "academic" program with the aim of transferring to a 4-year college, and those who take an occupational or career curriculum with the aim of acquiring specific skills in an occupation.

In relatively recent years, these community colleges have responded to a variety of manpower needs (and, in some cases, *created* the needs). For example, newer directions in community college education have included programs for training in the allied health technologies, in public or human service occupations (e.g., law enforcement, fire service programs, urban technicians, recreation directors, social work aides, and other paraprofessionals), and in environmental or natural resources education (3). Education for emerging occupations in water pollution, industrial chemistry, agricultural banking, international documents, and other *de nova* occupations has been assumed by community colleges (4). In addition, community colleges have maintained their more traditional training functions in the realm of business, agriculture, and engineering technologies.

All of these types of programs have arisen in an attempt to reduce the discrepency between simultaneous unemployment and manpower shortage in America; that is, the goal is to prepare an adequate number of craftsmen and technicians—skilled personnel—to fill high demand occupation requirements in order to reduce unemployment in low demand occupations (5). The community college settings for accomplishing this goal have been characterized by Robert H. Finch as "career centers for young Americans of every class and every race, and for older citizens as well who seek mid-career training. . . (they are) oriented to

the new technology, to the practical sciences, and. . . to the development of the paraprofessional disciplines, and. . . work. . . in close partnership with all the public and private and independent institutions of the social matrix" (6).

### Private Vocational and Technical Schools

Estimates of the number of private, post secondary vocational, trade, and technical schools in the United States range from 5,000 in 1964 (7) to 7,000 in 1969 (8) to 10,000 in 1974 (9). Clearly, such schools have been increasing in number at an extraordinary rate. Most of these are "young person" schools; that is, only slightly more than 10 percent of day students and 20 percent of evening students are 26 years of age or older (10). Almost all of the training provided in such schools is geared toward fulfilling specific occupational objectives, typically with a job simulation focus.

Most of these schools are perfectly reputable institutions. However, some have engaged in less than scrupulous practices, ranging from refusal to return the tuition of dissatisfied clientele to the unkept promise of job placement at the termination of studies. A great many private school students do not investigate such schools thoroughly (11), and the Federal Trade Commission is currently taking steps to ensure adequate consumer safeguards.

In any case, these schools have the capacity to train a great many more individuals than are availing themselves of the opportunities. The typical trade or technical school operates at about 60 percent of capacity; thus an additional 500,000 to one million students could be absorbed into the current structure (12).

### Apprenticeship Training

While the United States does not engage in apprenticeship training on the scope of many European countries (13), it does utilize the apprenticeship system to a relatively substantial degree. There are over a quarter of a million registered apprentices in American industry, apprenticing in about 350 occupations (14), most of them in the construction, manufacturing, transportation, and service industries.

Once virtually devoid of female and minority representation, apprenticeship occupations are now witnessing an increase in the numbers of women and minorities; however, such representation would still appear to be far from adequate. One jarring note: Those entering apprenticeship programs drop out at the rate of about 50 percent (15).

### Manpower Programs

Beginning in 1962 with the Manpower Training and Development Act and continuing through the present Comprehensive Employment and Training Act of 1973, trainees have been taught a variety of skills, have been given basic education and prevocational training, and have had the benefit of guidance and counseling services. Special concentration has been made to train the hard-core urban and rural disadvantaged populations. This year, almost 3 million

Americans will benefit in some way from the Comprehensive Employment and Training Act (CETA) (16). Some have even argued that manpower training programs are a third major approach to the socialization of the young in a capital-intensive society—after the family and school systems (17).

However, the Federal Government, through direct financing and training, can not provide all of the training required to meet the nation's needs for skilled personpower. The following table is illustrative of the scope of Federal involvement; while it demonstrates the substantial contribution of the Government, it also makes apparent the fact that the American private sector must assume the primary burden for technological and vocational training (18).

EMPLOYMENT DEMAND OF SELECTED OCCUPATIONS

| Occupation | Estimated annual job openings 1966-1975 (thousands) | Federally funded program graduates 1967, as related to openings (percent) |
|---|---|---|
| Mechanics, other than auto | 107 | 9 |
| Nurses, professional | 104 | 4 |
| Carpenters | 69 | 12 |
| Technicians, other than electric | 55 | 18 |
| Office machine operators* | 55 | 10 |
| Mechanics, automobile | 50 | 59 |
| Practical nurses | 47 | 40 |
| Technicians, electrical and electronic | 34 | 27 |
| Heavy equipment operators | 33 | 2 |
| Policemen | 29 | 3 |
| Technicians, medical and dental | 21 | 10 |

*Does not assume achieving specific national goals

### Correspondence Schools

Over 5 million Americans are engaged in correspondence school studies offered by private home study schools, business, industry, Federal, and military schools (19). Presumably, such studies are pursued because opportunities are not available in a given community and/or because the student is able to study at his own pace. The fact that the American population is so geographically mobile also probably relates to the increases in correspondence instruction, for such studies allow continuity despite physical changes in one's location. Too, the increased use of television as an instructional medium, teaching machines, and programmed instruction no doubt make correspondence instruction a more attractive alternative to a growing number of Americans.

### Other Opportunities

Other opportunities for post high school, sub-baccalaureate education exist in large numbers, but either will not be detailed in this paper or are documented elsewhere in these pages. Such vehicles for the delivery of education and training as cooperative programs, on-the-job programs, the military, business, industry, and rehabilitation facilities are servicing an impressive number of people. For example, just one American corporation, the General Electric Company, spends more than $45 million a year to provide its workers with a comprehensive training program (20).

## Evaluation of Post High School, Sub-Baccalaureate Education

Opportunities abound for post high school, sub-baccalaureate education in the United States. A very large number of people are being educated by various public and private agencies, and they are being trained in a basically sound manner. However, there are a number of problems inherent in this relatively formless educational structure.

First of all, our society has become so used to thinking in terms of a hierarchical structure of education, a pecking order, that the pursuit of studies at less than the baccalaureate level carries with it less status than studies for the baccalaureate degree. In the context of this educational bias, there is some degree of social stigma attached to occupational study at the sub-baccalaureate level, and a college degree appears to be a more attractive alternative for a great number of post-secondary school students than does study in trade, technical, or vocational education programs. If young people can learn that they bring a dignity to all work and that there is a great need for a wide range of workers in our society, then this situation can be assuaged.

Secondly, it is not only our young people who must learn and internalize new attitudes toward post high school, sub-baccalaureate education; our vocational and academic educators must also change their perceptions. Some vocational educators think that occupational education is the province of the secondary schools, and some academics in post high school educational institutions think occupational education is anathema to their schools. Unless academics, especially, accept occupational education as a valid function of public post-secondary education, progress will be delayed.

Thirdly, more skilled occupational educators teachers will need to be recruited and trained to provide the instruction in post-secondary school programs. There is currently a shortage of such instructors, and, if present conditions persist, the shortage will continue.

Fourthly, as is the case with all of continuing education, there is little or no coordination of efforts to provide post high school, sub-baccalaureate education. Little or no provision is being made to assess the demand for post-secondary trained personnel in given occupations and in given geographical locations, to eliminate obsolescent programs, or to plan for new programs. It has been observed that, "It would indeed be foolish in the extreme to assume that the vast expansion in occupational education can be accomplished by simply multiplying the programs and services that were successful yesterday" (21).

Finally, there are many types of institutions in our society which could easily increase their educational efforts in areas in which they are especially adept. One of the major recommendations of the now-classic American Council on Education study of post-secondary technical and vocational education was that "Continuing education for out-of-school youth and adults should become a major function of many more educational institutions, especially those with programs for highly skilled, technical, and professional occupations" (22). This goal has yet to be realized.

A great deal of useful work has been accomplished in defining the specialty-oriented student, that student who has post-secondary educational aspirations, but who is inclined to trade, technical, or business school training rather than college. The specialty-oriented student's prime educational motivation is to acquire an occupational skill or set of skills which could be used to enter the labor market (23). This type of student needs a special kind of meaningful and relevant information to expand his freedom of choice and the range of possibilities from among which he may choose.

## The Contribution of Career Education

Career education attempts to motivate all youngsters to want to work, to help them to realize that they bring a dignity to all types of work, and to help them acquire work skills. In the area of post high school, sub-baccalaureate education, our young people too frequently have absorbed some of society's negative attitudes about the way we feel regarding people who work with their hands, have gained inadequate knowledge about occupational opportunities in the technological, trade, and skilled occupations, and have acquired too little information regarding the training opportunities which exist to help them train for these occupations. Career education is an effort to change negative work attitudes to healthful ones, to provide the necessary self-knowledge and knowledge about the world of work and educational opportunities, and to teach the decision-making skills necessary in order that our young people can take advantage of the opportunities which exist. In short, "in place of occupational illiteracy, it promises occupational fluency; in place of a lack of goals, it promises goal-directedness; and in place of nonemployability, it promises saleable skills" (24).

## Summary

Opportunities for post high school, sub-baccalaureate education exist on a large scale; they afford a great number of individuals education for skilled occupations, but they are still underutilized because of negative attitudes toward sub-baccalaureate degree education and because of a lack of information by high school graduates and drop-outs. The field is not without some problems. These were detailed in the preceding pages.

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